The Builder.

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A Sketch of the History of Scene Painting.

IT is to be regretted that we have no comprehensive history of scene-painting, or record of the improvements and changes in it that have been made. Whatever may have been done in the antique times (we suspect it was but little), and leaving out of view the properties and arrangements for the "mysteries" of the Middle Ages, — "Item, thereto 'longeth Hevyn, made of tymbr and steyned clothes. Item, Hell made of timbr and yron-worke, with Devells the numbr of xiij."* — it appears that to Balthazar Peruzzi, the architect of the Massimi Palace in Rome, who died in 1536, must be ascribed the merit of almost originating for modern times the art of scene-painting. Brunelleschi, at an earlier date, the beginning of the fifteenth century, had been employed in the construction of mechanical illustrations of pious representations in Florence. Vasari describes his device of Paradise, where a great effect was produced by a multitude of lights which were alternately shrouded and uncovered with great rapidity. Peruzzi, however, brought skill in painting and an intimate knowledge of perspective to bear on the subject, and produced a perfect art. The theatrical decorations he executed, says Vasari, although the first, became the models and regulators of those painted afterwards. It is difficult to conceive, he continues, with what skill our decorator, in so confined a space found the means of representing so many buildings, palaces, porticos, and profiles as he did; and all so truthful that the objects seemed real, and the spectator, before a painted cloth, believed himself actually transported into the midst of the place represented, so far was the illusion carried. Warm as the eulogium is, there are decorations remaining from the hand of Peruzzi, although his scenery has long since passed away, which show that it was not beyond the truth. Vasari tells how that Titian, viewing with him one day some of these architectural decorations at the Farnesina Palace, was so far deceived by the apparent relief of the ornaments and mouldings, as to insist on having a ladder, that he might disabuse the sense of sight by the sense of touch.

It appears certain that Shakspeare, our great master of picturesque situations, was but little aided by the artistic ability of his age. Sir Philip Sydney says, speaking of tragedies and comedies as exhibited at the public theatres, "Now you shall have three ladies walk to gather flowers, and then we must believe the stage to be a garden. By and by we hear news of shipwreck in the same place; then we are to blame if we accept it not for a rock. Upon the back of that comes out a hideous monster with fire and smoke; and then the miserable beholders are bound to take it for a cave."

There seems to have been almost as great a scarcity of supernumerary actors as of scenery, for he adds: "While in the mean time two armies fly in, represented with four swords and bucklers; and then what hard heart will not receive it for a pitched battle-field." A writer in the *Somerset House Miscellany*, published some thirty years ago, remarks that the Scotch used painted scenes, for the royal stage at least, before they appeared in our theatrical representations,—for some dramatic pieces performed at Holyrood House by order of King James before his accession to the throne of England, designed, it is said, by Mytens, and painted by some foreign artists.

In the dialogue between *Lovewit* and *Trueman*, the latter says, "What if there were five theatres then [before the civil wars], the town would maintain them, the prices being small, there being no scenes....." "It is an argument of the worth of the plays and the actors of the last age, and easily inferred, that they were much beyond ours in this—to consider that they could support themselves from their own merit, the weight of the matter, and goodness of the action, without scenes and machinery; whereas the plays, with all these, can hardly draw an audience, unless there be the additional invitation of a Signor Fideli, a Monsieur l'Abbé, or some such foreign regate expressed in the bottom of the bill."

The introduction of stage scenery in England was much advanced by King Charles I. when he and his Queen Henrietta Maria themselves played in the masques at the palace of Whitehall. On those occasions, as is well known, Inigo Jones was machinist for their stage. Inigo had studied as a landscape-painter in Italy; it may therefore be reasonably supposed, that, with his knowledge of the picturesque united with his skill in architecture, the scenery and machinery were worthy of the masques of Ben Jonson and the music of Laniere. We first hear of Inigo Jones in England in 1604-5, when the queen had ordered a masque to be prepared at Whitehall on Twelfth-night. Ben Jonson was the poet, and "the bodily part," as Jonson tells us, "was of Master Inigo Jones's design and art." The poet's description of Inigo's portion of the work, beginning, "First for the scene was drawn a *landtschap* consisting of small woods, and here and there a void place filled with huntings," contains the earliest notice we possess of the use of scenery in stage entertainments.*

In the autumn of the same year Jones prepared the scenery and devices for three plays presented before the king in the hall of Christ Church, Oxford, and "had for his pains," says a contemporary, "as I have constantly heard, 50*l*." The stage, it appears, was built close to the upper end of the hall, "as it seemed at first sight; but indeed it was but a false wall, faire painted, and adorned with stately pillars, which pillars would turn about, by reason whereof, with the help of other painted cloths, their stage did vary three times in the acting of one tragedy."

For the Masque of Hymen, 1605-6, Inigo seems, from a short description given by Ben Jonson, to have attempted what was then new. He says: "Here the upper part of the scene, which was all of clouds, and made artificially to swell, and ride like the rack, began to open; and, the air clearing, in the top thereof was discovered Juno sitting on a throne supported by two beautiful peacocks; above her, the region of fire, with a continual motion, was seen to whirl circularly, and Jupiter standing on the top (figuring the Heaven), brandishing his thunder." The description would almost serve for what was done in one of Mr. Charles Kean's revivals, hereafter referred to.

When on a future occasion, 1610, Inigo Jones was connected with Samuel Daniel in the production of a masque, the latter wrote: "But in these things, wherein the only life consists in shew, the art and invention of the *architect* gives the greatest grace, and is of most importance; *ours* the least part, and of least note in the time of the performance thereof, and therefore have I intersected the description of the artificial part which only speaks of M. Inigo Jones."

Again, the "Memorable Maske of the Two Honorable Houses or Inns of Court, the Middle Temple and Lyncoln's Inne," is described as, "Invented and fashioned, with the ground and speciall structure of the whole worke, by our Kingdome's most artfull and ingenious architect Inigo Jones." Many of Jones's sketches for scenery remain.

Milton's "Masque of Comus" was exhibited with all the aid of painted scenery, dresses, and machinery which was at that time available, to render the spectacle as illusive as the art could make it. Henry Lawes, the musician, composed the music for the masque, and played the shepherd. The children of the Earl of Bridgwater also performed in the piece; and it was represented before his lordship and friends at Ludlow Castle in 1634.

The improvements which were designed for the public theatres, under the auspices of the king, were suspended at the time of the *troubles*, and subsequent governments did not much aid the theatres. However, just before the Restoration, Sir William D'Avenant obtained the management of the Duke's Theatre in Blackfriars. This enlightened manager (who produced, in 1656, the "Siege of Rhodes," "made into a representation by the art of perspective in scenes"), procured artistic assistance from Italy and France, where at that time these matters were better cared for. His scene-painters were Italians, but our countryman, Streater, the landscape-painter, assisted. It is said that some of the spectacles exhibited on the stage were very imposing, and received by the public with great applause.

It was, however, at Rich's theatre in Lincoln's-inn-fields, that the introduction of pantomimes led to such scenic effects as delighted both the old and young of all ranks. This manager engaged a foreign scene-painter, Signor Servandoni. Another foreigner, Monsieur de Voto, was an occasional assistant, so was also the celebrated Jack La Guerre; but the principal strength of Rich rested in the talents of that choice spirit, George Lambert, who was long his chief scene-painter. When Rich removed to his new and more splendid theatre at Covent-garden, this worthy was provided by the manager with a spacious room for carrying out his scenic operations. In this place was established the famous Beefsteak Club, still in existence. Frank Hayman, the first librarian of the Royal Academy, was scene-painter at Drury-lane. When the fame of the Italian opera was in its zenith, Signors Popora and Farinelli came to England to join that renowned musical corps, and Signor Amiconi, the painter, was of the party. This artist painted the scenes for the great theatre in the Haymarket. He also assisted occasionally in the scene-room of Covent-garden, and in conjunction with old Oram painted the ceiling and proscenium of that theatre.

Amongst our earliest scene-painters, quoting the miscellany to which we have already referred, was Robert Aggas or Angus. He was a good landscape-painter, both in oil and distemper (and was skilled in architecture): he painted several scenes for the theatre in Dorset-gardens. A landscape by this artist was presented by him to the company of Painter Stainers for their hall in Trinity-lane. Aggas died in 1679.

Thomas Dall, a native of Denmark, painted some scenes for Covent-garden Theatre, which were much admired. Hogarth painted a camp scene for the private theatre of Dr. Hoadley, Dean of Winchester. Richards, the original secretary of the Royal Academy, was for many years principal scene-painter to Covent-garden Theatre; his coadjutors were Messrs. Bowles and Carver. Two of Richards's scenes for the "Maid of the Mill" were engraved in line, by Rooker. This has been done in but very few cases. A series of scenes painted for the theatre known as La Scala, at Milan, by Sanquirico, were, however, engraved and published.

Michael Angelo Rooker, son of Rooker the engraver, was principal scene-painter to Colman's theatre in the Haymarket. Walmsey, French, and the younger Catton were also scene-painters. Hodges, the pupil of Wilson, was scene-painter at the Italian Opera-house, held at the Pantheon after the fire of the King's Theatre in the Haymarket.

Signor Novosielsky, the architect who rebuilt this theatre, was also scene-painter to the new and splendid stage formed there: some of his excellent architectural sketches for scenes are at this moment before us; and De Loutherbourg, though last in this list, yet perhaps

* MS. in the church of St. Mary Redcliff, Bristol.

* The description is quoted at length in the volume on "Inigo Jones," printed for the Shakspeare Society.

the greatest, was scene-painter to Drury-lane Theatre during the management of Garrick.

For "The Winter's Tale," Loutherbourg introduced a number of new effects by means of transparencies; but it was left for others, of the present time, to give to the scenery of this play the proper character. Loutherbourg's *Eidophusikon*, which was the delight of thousands in his day, probably had considerable effect on stage scenery, and demands a detailed notice.

De Loutherbourg, who had studied the varied effects of nature amid the Pyrenees, the Alps, and his own native mountains in Alsatia, conceived the notion that the scenery of England was well worthy of an artist's study, and prepared a means of exhibiting views of English scenery under different aspects. The stage was little more than 6 feet wide, and about 8 feet in depth; yet such was the painter's skill and knowledge of effect, that the landscape seemed to recede for miles,—said his contemporaries.

The opening subject of the *Eidophusikon* represented the river from the summit of One-tree-hill, Greenwich Park, looking up the Thames to the metropolis; on one side, conspicuous upon its picturesque eminence, stood Flamstead House; and below, on the right, Greenwich Hospital, with its cupola, cut out of pasteboard, and painted with architectural exactness. The large group of trees formed another division, behind which were the towns of Greenwich and Deptford. The fore-ground was constructed of cork, broken into the rugged and picturesque forms of a sand-pit, covered with minute mosses and lichens, and producing an effect amounting to reality.

This scene, on the rising of the curtain, was enveloped in the dim light of early morning; so true to nature, it is said, that the imagination of the spectators sniffed the sweet breath of morn: a faint light appeared along the horizon, the scene assumed a vapourish tint of grey, presently a gleam of saffron, changing to the pure varieties that tinge the fleecy clouds that pass away in the morning mists: the picture brightened by degrees; the sun appeared, gilding the tops of the trees and the projections of the lofty buildings, and burnishing the vanes on the cupolas, when the whole scene burst upon the eye in the gorgeous splendour of a beauteous day.

The clouds in every scene had a natural motion, and they were painted in semi-transparent colours, so that they not only received light in front, but by a greater intensity of the Argand lamps were susceptible of being lighted from behind. The linen on which they were painted was stretched on frames twenty times the surface of the stage, and rose dingonally by a winding machine.

The lamps used by De Loutherbourg were above the proscenium, and before them he used slips of glass of various colours to throw a tint upon the scenery, compatible with the time of day which he represented.

The effects of a storm at sea, with the loss of an East-Indiaman, are described as being astonishing: all the characteristic horrors of wind, hail, thunder, lightning, and the roaring of the waves were given with amazing reality.

Gainsborough was so enthralled and delighted with the *Eidophusikon*, that for a time he thought of nothing else. The waves were carved in soft wood, from models made in clay; were coloured with great skill, and, being highly varnished, reflected the lightning. Each turned on its own axis towards the other, in a contrary direction, throwing up the foam sometimes in one spot and sometimes in another; and, diminishing in altitude as they receded in the distance, were subdued by corresponding tints.

For rain and hail, a long four-sided tube was charged with small seed, which, according to the degree of its motion,—from a horizontal to a vertical position,—ran in a pattering stream to the bottom, when it was turned to repeat the operation. The hail was expressed by a similar tube, on a large scale, with pasteboard shelves projecting on inclined planes, and charged with little beads, which sliding from shelf to shelf, fell fast or slow as the tube was suddenly or gently raised.

Amongst other scene-painters of this time we have William Capon, who had studied under Novosielski, and painted some excellent old English street scenery for John Kemble: some of his sketches still exist. Then there were Robert Dighton and Charles Dibdin.

These will bring us down nearly to the time when Mr. John Grieve, father of the present veteran artist, Mr. Thomas Grieve, with Messrs. Pugh, Phillips, and Whitmore, were the painters at Covent-garden, while Messrs. Greenwood and Marinari were painting at Drury-lane; whereto, for a time, came also Nasmyth, the landscape painter, from the North.

John Grieve changed the mode of painting very considerably, using a glaze as in water-colour painting, whereas before only solid colours were used. It was called by rivals the "Scotch wash," in contempt; but the mode is now universally pursued, and permits of the production of landscapes with an excellence before unattainable. Succeeding Greenwood at Drury-lane, came Mr. Clarkson Stanfield and Mr. David Roberts, now both Royal Academicians, and holding justly the highest places in the roll of landscape-painters. The scenery of "Acis and Galatea," under the management of Mr. Macready, is usually mentioned as that in which Mr. Stanfield more particularly produced some beautiful pictures.

Mr. Stanfield's engagement at Drury-lane, where he first achieved any reputation as a scene painter, was in 1822, under the management of Robert William Elliston; and here, in conjunction with Marinari and David Roberts, and with a host of assistants, including Andrews, Franklin, Adams, and others, he pursued a long and successful career. Mr. Stanfield finally left the theatre in 1835, with the exception of painting for his friend Mr. Macready, on two occasions, during his management of Covent-garden and of Drury-lane, for whom he produced the scenery for "Acis and Galatea," to which reference has been made. The drop-scene at the New Adelphi Theatre, a charming Greek landscape, was, we believe, painted from a drawing by Mr. Stanfield, by Mr. Telbin.

Mr. Roberts commenced at Drury-lane with Mr. Stanfield; but, large as this national establishment was, it would seem that it was not quite sufficiently so for two such aspiring geniuses; at any rate, Mr. Roberts left, and accepted office at the rival house, Covent-garden, where he painted the entire scenery of several pieces, particularly for the opera, by Cramer, called "The Seraglio," for which he executed twenty scenes. In the meantime circumstances led to a resolve on his part to quit England; and, acting on the advice of Wilkie, he went to Spain. This broke off his connection with the theatre, fortunately for himself, and, we may add, for the lovers of art, as he has since devoted himself to the production of works which can and will be preserved. In 1838 and 1839 he made his journey to Egypt and Syria, was afterwards elected a member of the Royal Academy, and has since then been constantly before the public, much to their advantage and gratification.

Mr. Thomas Grieve was in his father's painting-room, before the old Covent-garden Theatre was burnt down, in 1808, so that he has served a long apprenticeship to the art,—an apprenticeship of half a century. When he was at Covent-garden Theatre, the late Welby Pugin, amongst others, at times co-operated with him. Mr. Grieve has produced, partly in conjunction with Mr. Telbin, another most able painter, and assisted by Mr. F. Lloyds, Mr. W. Gordon, Mr. Cuthbert, Mr. Morris, Mr. Dayes, and others, the excellent scenery for the remarkable series of Shaksperian revivals, produced by Mr. Charles Kean at the Princess's Theatre—revivals which constitute an era in the history of the stage, and should influence all that is done upon it hereafter; revivals which have justly obtained for Mr. Kean a world-wide reputation, and entitle him to the thanks of all who would see the Stage an instructor.

We may be excused, in giving a general view of the subject, if we connect with the architectural portions of the scenery of these revivals, the name of Mr. Godwin. In several instances Mr. George Scharf and others co-operated to the same end.

Mr. William Beverley, at the Royal Italian Opera House, and at Drury-lane; Mr. Callcott, at the Haymarket; and Mr. Fenton, at Sadler's Wells, are artists of skill and taste. Mr. Beverley must be regarded as the originator of a scene involving a large amount of machinery and modelling, now universally imitated, and has produced some effects of surpassing beauty. Mr. Beverley began early, painting when quite a boy, for his father's theatre in Sunderland, scenes for a pantomime which excited a sensation. His first work in London was done for the Victoria Theatre seventeen years ago. He afterwards went to the Princess's during Mr. Madox's management for a three years' engagement, where he produced some of his modelled scenes. Then followed his engagement at the Lyceum, and illustration, during eight years, of the series of extravaganzas by Mr. Planché, under Madame Vestris's management. Beautiful indeed were some of the scenes he there produced, but probably for drawing and modelling, elaborate device, and excellence of effect, the transformation scene of the last pantomime but one at Drury-lane (that for Christmas, 1857), may be pointed to as his chief work of this kind. The cost of such scenes is of course very great: the expenditure on the scene we have named is said to have been not much less than 1,000*l*. At Mr. Gye's new theatre, Covent-garden, he has now the finest painting-room in the world.

Apart from these mechanical scenes, so to call them, there is something to be done in the way of scenery in England yet. Much of what is produced is of a common and unworthy character: even the best might be better; and we may one day find an opportunity, in continuation of this outline, to submit our views on the subject.

BYZANTIUM, AND ITS ARCHITECTURE.

THERE is a period in the history of the world's revolutions so momentous in its operation upon the fate of nations; so connected, as far as finite perception can calculate, with the present position of a portion of the world's civilization; that the reader who peruses the eventful tale, pauses again and again, at each succeeding incident in a nation's downfall, to ponder in his own mind the strange vicissitudes of fortune that could consign to the degradation of a barbarian rule the descendant of the two greatest races of the ancient world; crossed, it is true, with Asiatic blood, and sullied by Asiatic tendencies, yet still presenting the record of its illustrious parentage in the language of the one and the affected sovereignty of the other;—could condemn her, from being the model for mankind's imitation in her prosperity, to become in her adversity the focus for its pity,—at once its moral and its lesson.

There is a period in the history of the world's religion, so favourable to the cause of light and Christianity, so fatal to the reign of darkness and paganism, that the establishment of a large portion of that world's faith in a heavenly Redeemer, as far as human agency is concerned, may date its permanence from that period and the events that made it remarkable, and which contributed more than any other to its full development.

Again, there is a period in the history of architecture, which, in addition to other changes, civil, political, and moral, exercised so great an influence upon the form, arrangement, and design, of ecclesiastical edifices throughout the Christian world, and evoked therewith a style of such singular beauty, variety, and dissimilarity to anything that had preceded it, that the gratitude of mankind seems justly due to a revolution productive of so great a result; and which, but for it, might possibly have remained unattained to this day.

To the scholar, the churchman, and the architect, this period, so productive of great events, must ever present features of peculiar interest, as forming the connecting link between two distinct periods; at once the last act of the great classic drama of the past, and the first of a drama whose end yet lies undeveloped amongst the secrets of the future.

Although the deposition of the last of the Roman emperors, Augustulus,—a name of ominous import,—and the commencement of the Gothic dynasty in Italy, mark the period of the extinction of the Roman empire in the West; yet the conversion to Christianity of Constantine, and the removal of the seat of empire from Rome to Byzantium, are to the architect events of still

greater moment, as forming the turning-point in his art's history,—

"A time
Whence he may date, henceforward and for ever."

"The public establishment of Christianity," says Gibbon, "may be considered as one of those important and domestic revolutions which excite the most lively curiosity, and afford the most valuable instruction. The victories and the civil policy of Constantine no longer influence the state of Europe; but a considerable portion of the globe still retains the impression which it received from the conversion of that monarch; and the ecclesiastical institutions of his reign are still connected, by an indissoluble chain, with the opinions, the passions, and the interests of the present generation."

It is but of small moment to the architect at what precise period Constantine renounced his faith in the gods of Rome; whether owing to the miraculous sign in the heavens whilst preparing for the Italian expedition, or subsequent to the death of Priscus,—Priscus, as Eusebius terms him, *Θεοφιλέστατον καὶ κατὰ πάντα τοῦ πατρὸς ὅμοιον*. That political motives caused him long to temporize between the two faiths cannot be doubted; but the discussion is a long one, and we are fain to substitute for the luminous but more lengthy judgment of Gibbon the shorter but almost as comprehensive one supplied by Niebuhr: "Among those who have written upon the history of Constantine, some are fanatic panegyrists and others as fanatic detractors, and there are but very few who treat him with fairness. The exaggerated praise of Oriental writers is quite unbearable, and almost inclines one to side with the opposite party. Many judge of him by too severe a standard, because they look upon him as a Christian; but I cannot regard him in that light. The man who inscribed on his coins '*Sol invictus*,' who worshipped Pagan divinities, consulted the *haruspices*, indulged in a number of Pagan superstitions, and, on the other hand, built churches, shut up Pagan temples, and interfered with the Council of Nicæa, must have been a repulsive phenomenon, but was certainly not a Christian." Eleven centuries had elapsed since the great founder of the Roman name had planted the seat of his dominion upon the Palatine hill: the kingdom had given place to the republic, the republic to the empire; and though the course of Rome's greatness had long since reached its climax, and symptoms of her progressive decline had unequivocally declared themselves, yet the vigorous arm and master-mind of the great Constantine had rescued from a host of competitors, and centred in his own rule, an empire still vast and vigorous beyond precedent, when the adoption of a novel resolution, bold in conception, grand in execution, but disastrous in result, laid the foundation for those changes in the political, social, and religious condition of the empire which hastened the consummation of a catastrophe that might otherwise have been indefinitely postponed.

How a new Rome and a new religion affected the language and literature of the empire we will presently inquire. That the mighty currents of Gothic and Byzantine architecture, however influenced they might be by the minor streams that have contributed to swell the broad bosom of their impetuous tides, may be traced through the extended countries that they have fertilized to the Roman fountain whence they derived their source, all have agreed. It is a question of amount only, and future explorers may throw more light upon a subject which but a few years since was wrapped in comparative darkness.

It was the architecture of Byzantium, formed from the combination of two great principles, each principle thereof further reducible to the primary elements and distinct nationalities that, age after age, and nation after nation, had, consecutively, contributed towards its formation; and which, when united in indissoluble bonds upon the shores of the Bosphorus, typified by its antagonistic features that discordant union of Eastern and Western blood that paid the penalty of imprudence in disaster and downfall: it was the architecture of Byzantium, of hybrid beauty, but of surpassing interest, whose development, in different modes, was destined to influence, more or less, all those varied styles of architecture that have succeeded it.

The first offshoot from the Byzantine stock was one that in its after development exhibited a luxuriance of invention of ornamental detail, doubtless derived from the natural genius of its producers for mathematical science, that has never been equalled. Strange was the course of events that, from the descendants of the pastoral and wandering tribes who found a subsistence for their flocks in the scanty pasture and sandy waste of Arabia, should produce a race of warriors that might vie with Rome herself in conquest: stranger still the course of events that, from the descendants of these rude dwellers in tents, could elicit an artistic skill equal to the creation of the marvellous beauties of the Alhambra.

It is to the success of the unexampled religious imposture of Mahomet, who, by the twofold persuasion of the sword and the Koran, established that powerful monarchy of the caliphate, which, in an incredibly short space of time, extended its conquests over Persia, Syria, Egypt, Africa, and Spain; subdued Crete and Sicily; invaded France and Italy; assaulted Rome herself, and shook the Byzantine empire to its centre; that we owe that wondrous style of Arabesques and Mosaics, that came and vanished like a dream; germinated, reached its apogee, and departed, whilst yet its sister of the Gothic school was struggling in the undeveloped stages of its long transition from the Classic.

"The genius of the Arabian prophet," says Gibbon, "the manners of his nation, and the spirit of his religion, involve the causes of the decline and fall of the Eastern empire; and our eyes are curiously intent on one of the most memorable revolutions, which have impressed a new and lasting character on the nations of the globe."

It was, however, from the enthusiasm of the conquered and converted nations in the new faith that the aggressive power was given to the Saracen domination, which the scanty population of Arabia could never have supplied. The speedy resumption of their own individual sovereignties, by Persia, Syria, Egypt, Africa, and Spain, proved that their acknowledgment of Saracenic supremacy was due alone to the religious claims of its caliph, as successor of the prophet. Arabia had no architecture of its own, and the Caaba of Mecca is the only existing exponent of their ancient idolatrous worship. The architectural remains of the Mahomedans, in the various countries that adopted their religion or owned their rule, all exhibit such features of that which was pre-existent in those countries as go far to prove that the Moslem style was not indigenous, but an adaptation of former ones to new wants and circumstances. Nevertheless, a style was at last elaborated, as Fergusson says, "tolerably homogeneous, though never losing entirely those local peculiarities which it received from the earlier styles out of which it rose, and which still continue to mark most distinctly the various nationalities which made up the great empire of Islam."

Deeply influenced by the Saracenic element is the architecture of Venice of the Gothic period, which, derived from the Lombard—itself a modification or variety of the Byzantine—followed the instincts of its birth in combining rather with the Saracenic of the south than the Gothic of the north, and in this combination produced a Gothic of Eastern character—the Gothic of Venice—a city which, in its history, is more associated with the Eastern than the Western empire. But we shall, for this occasion, content ourselves with a few words from the historian of its stones. "The work of the Lombard was to give hardihood and system to the enervated body and enfeebled mind of Christendom; that of the Arab was to punish idolatry, and to proclaim the spirituality of worship. The Lombard covered every church which he built with the sculptured representations of bodily exercises—hunting and war. The Arab banished all imagination of creature from his temples, and proclaimed from their minarets, 'There is no god but God.' Opposite in their character and mission, alike in their magnificence of energy, they came from the North and from the South, the glacier torrent and the lava stream: they met and contended over the wreck of the Roman empire; and the very centre of the struggle, the point of pause of both, the dead water of the opposite eddies, charged with embayed fragments of the Roman wreck, is Venice." But of Saracenic and Venetian architecture we shall have occasion to speak more fully anon.

Nor will we here stop to consider the still more interesting subject of the various phases of the Gothic styles which subsequently grew out of that Christian Romanesque, an architecture which has been well described as having lost the refinement of Pagan art in the decline and fall of the empire, but which was "elevated by Christianity to higher aims, and by the fancy of the Greek workmen endowed with brighter forms."

Although the conversion of Constantine may be considered, in the abstract, as the great transitional event that fixed an eternal boundary between Pagan and Christian architecture, yet a change from idolatry to Christianity had been gradually progressing during the two previous centuries; the old mythology had long found trust only among the crafty and the foolish—for the wise knew better; the sun of the classic was setting, to be succeeded by a long night of transitional darkness, to break again into glorious light in the perfected architecture of the Middle Ages. The architecture of Rome being of itself exotic, that of Christendom may claim a pedigree of still higher antiquity in the remoter land where the parent plant was indigenous; but the element that furnished form and substance to the new style, and which, through the long ages of a gradual transition, preserved, almost intact, the great distinctive features that first called it into being, was essentially of Roman origin, and presents no trace of the templar form that constituted the very essence of the architecture of ancient Greece.

The legalization of the "pure and humble religion" that for three centuries had endured the rage of persecution, and hidden the visible testimony of its increasing growth from the eyes of its virulent assailants in the obscurity of the cave and the catacomb, had now obtained for it a recognition of its claims, "a local habitation and a name." The form of the future basilican church had found its type in the existing secular buildings which conferred their name upon their ecclesiastical imitations, and which, from the Porcian, the first basilica recorded by Livy, to that of Maxentius, the model and type for mediæval vaulting in an after age, had presented throughout the same leading characteristics. But it was not until the reign of Theodosius that the Christian was ordained to be the national faith, for the apostacy of Julian and the irresolution of Valentinian had restored the worship of the heathen gods, and the difficulties or the doubts of Constantine himself had prompted him to erect his churches in the outskirts only of the still Pagan city.

But the architecture of Rome,—which had culminated under the munificent patronage of Augustus; had languished under the vices of Caligula; had received a fitful lustre from the prodigality of Nero; had reached the colossal under Vespasian and Titus; had enjoyed a vigorous beauty under Trajan and the Antonines; and had reached the climax of vitiation under Diocletian;—the architecture of Rome was now but the shadow of its former self, and retained but the memory of its high descent under the significant title of "Romanesque." But while the art of decoration had been gradually deteriorating, that of construction had been in the same ratio progressing, and as the simple hemispherical dome, springing from a circular or polygonal tambour, presents relatively its chief examples in the Pantheon and the ruins of the so-called Minerva Medica, so does the groined roof, formed by the intersection of semi-cylindrical vaults, covering vast areas, like those of the Thermæ of Diocletian and Caracalla, reach its climax in the gigantic remains of the Basilica of Maxentius.

It is unfortunate that the slight construction of the original Pagan basilicas at Rome, added to the free use of their materials in the erection of their Christian prototypes, should have left us such scant records of a class of building, which, as shown by the mutilated Capitoline plan, must have been numerous: however, the remains of those we do possess—the Ulpian and Maximian—illustrate respectively not only the plan, but the wooden and vaulted method of roofing such buildings.

The Romanesque or Romane, in its full development, was the first completed step in the transitional process; a preliminary state of the art, which, at an early period, assumed in the East the features known as Byzantine, but in the West, prevailed in Rome itself and other parts of Italy during the whole period of the Middle Ages. Much confusion has been occasioned by the indiscriminate use of these terms, though the foreign elements that distinguish the latter are sufficiently pronounced to render such confusion unnecessary, and the terms Byzantine and Lombard have been equally applied to all round-arched styles in Italy, Germany, and France; but a clearer insight into the different features of several styles has found a more convenient nomenclature in Byzantine, Lombard, Rhenish, Norman, &c.

It was the fashion of our ancestors to deal with results rather than causes; to be content to accept styles as they found them, rather than to inquire how they came to be so; but the more enlightened views of modern architects prompt them to investigate before they adopt; to reduce each style to its elements before employing in a

late century what was only suitable to an early one. It is this spirit of investigation which has enabled modern energy to rouse from its long slumber the genius of that mighty style, which, finding its germ in the effete forms of old Rome, expanded to a perfection of symmetry in the Middle Ages, which contrasted the more strangely with the general low state of the arts and literature around. The revival of the Pointed style is a distinguishing feature of the age we live in, and so adequate is modern ability to accommodate it to modern wants, that there would seem to be but one qualification wanting to make our productions equal to the models we derive them from—the spirit. But there is the difficulty; "*L'abito non fa il monaco;*" the monk's hood is no warrant for the monk's sanctity; and the spirit of *one* age cannot be infused into *another*.

This want, so easy to perceive, so difficult to supply, is like the necessary consequence of our position at the present day as compared with that of our ancestors. The ancients were driven by necessity to invent: the moderns are necessitated by repletion to copy. The former concentrated their energies in producing a style that should stamp a country and a period: the latter expend theirs in adopting such a variety of styles as shall convey no true picture of either. Fortunately, the scantiness of records that made style and construction the only evidence of the date of many of the buildings of antiquity is an evil that need be scarcely dreaded in these days of literary affluence, or the skill of the future antiquary would have sometimes a task of no small difficulty in distinguishing between real age and assumed. But it is in this display of a just veneration for the past, combined with a necessary originality for the present, that the great difficulty of modern design consists, our antiquarian predilections being too apt to fetter our inventive faculties. The antiquarian spirit that succeeded the introduction of the arts of Greece to this country, when the labours of Stuart had at last convinced the world of the difference of Greek and Roman proportions, and which showed itself for years in a series of servile reproductions of classic forms, and palsied the spirit of invention by a blind submission to an absurd canon of architectural faith,—that anything old must of necessity be good, and anything original of equal necessity bad,—has, since the revival of the Pointed style, given way to more enlightened notions upon the relative value of the respect due to antiquity and the duty owed to ourselves. Architects and antiquaries are or ought to be animated by a totally different spirit, for, whilst the one is ever looking back with regret upon the past, the other is or should be equally intent on looking forward with hope to the future. The motto of the one is "Stand still," that of the other, "Go on;" yet their love of art is, perhaps, equal, though differently expressed. The real antiquary in art reads in his ruins the volume of the past, but confines his reading to that volume, and would regard the altering or adapting a building of antiquity to a purpose foreign to its original intent with much the same horror as the antiquary in literature would view the tampering with a mutilated manuscript, the fancy restoration of an effaced palimpsest. The one will permit the addition of only just so much modern masonry as may preserve the tottering fabric from immediate fall: the other will sanction such interpolations only in the blank *lacunæ* as the context may afford unquestionable warrant for: to both conjecture is idle, emendation is sacrilege. The true architect has equal love for the volume of the past, but sees in it only an introduction to that of the future; a continuous tale, in which he has himself a part to play; a story of indefinite length, whose sequel shall only be revealed when time shall qualify posterity for its dispassionate perusal. As Quintilian justly remarks:—"*Alioquin pessimè de rebus humanis perductæ in summum artes miserentur, si quod optimum idem ultimum fuisset.*" "The advancement of the arts to the highest possible excellence would be but of poor service to mankind, if what was best at any particular moment was to be the last." By this he means to say that, as it is impossible to know when art has arrived at its zenith, so is it the artists duty never to relax in his efforts to advance it more and more.

That the usual course of progression—infancy, culmination, and decline—which characterizes the history of all past nations, and, indeed, all human institutions, should illustrate the history of the Roman nation as well as others, is what need occasion no surprise; but that so short a period as elapsed from the reign of Augustus to that of Constantine, should produce so great a revulsion in the preconceived architectural notions of the most enlightened nation of the time, would be sufficiently astonishing, did not the greatness of the chief cause account for results so startling and unprecedented.

As Niebuhr observes, "There are people who charge the Christian religion with having destroyed ancient art; but the charge is utterly groundless; for ancient art had ceased before Christianity was introduced." That the very spirit of early Christianity was adverse and destructive to art, none can deny. The attributes of the gods of Greece, palpable and intelligible, might be portrayed in the trembling marble; but those of the God of the Christians, impalpable, infinite, abstract from matter, could not be so expressed without evident degradation. The antipathy to idolatry which constituted the very essence of early Christianity, engendered a hatred to the fine arts that had been stained by such pollution. From antipathy sprang bigotry and fanaticism, and degradation or destruction was the fate of the noblest monuments of antiquity. Indeed, from the first uproar amongst the artists of Ephesus upon St. Paul's denunciation of the worship of the goddess Diana, to the long and fiercely-contested struggle between the iconoclasts and their opponents in the eighth century, the sculptor's occupation was virtually gone, and his art lost. The impunity granted to the monuments of pagan art, by the delays and toleration of Constantine and Valentinian, was amply revenged by the orthodox zeal of Theodosius; and an edict by that monarch at the close of the fourth century, procured an indiscriminate destruction of the temples and sculpture of Rome and the provinces. Exceptions there were, however, in the work of devastation; and in token of such good providence, the Pantheon still rears its dome in its pristine majesty. Fanaticism of the same kind is charged against Pope Gregory the First. His writings reveal his implacable hatred to the classic monuments of pagan art, and he is reported to have ordered that any remaining vestige of it should be consigned to the Tiber. But fanaticism never differs from itself, and the same bigotry has not been found wanting in our own country, and at a much later period. Great, however, has been the expiation since offered by civilized Europe generally, and Italy in particular, for the barbaric deeds of their ancestors, by the revival of the arts and encouragement of their professors, and in the veneration since displayed for every fragment of the master-pieces of antiquity, which time and fanaticism have spared us. Greater still has been the compensation made to the world, for any architectural damage it may have sustained, in the first instance, by the introduction of Christianity, —albeit the decline of the old Classic forms of Greek type was a matter quite independent of that event,—in the creation of a style as superior to the debased source from which it sprang, as the butterfly is to the chrysalis, or sunlight to obscurity.*

CLOTHWORKERS' HALL, MINCING-LANE.

IN recent notices of architecture in the city of London we spoke of Clothworkers' Hall, of which we had given a view some time previously, in fact before the front was completed; and we expressed the intention of supplying some particulars of the arrangements and decorative details of the interior. We are now able to redeem this pledge. The building is very nearly finished, unless we except certain work in decorative painting, necessarily deferred; and it is already in great part appropriated for the business and festivals of the company. The narrow front in Mincing-lane gives a limited notion of the extent of the present building, and of its importance architecturally The ground extending back, or eastward, to the church-yard of Allhallows Barking, widens considerably in that part (being bounded for the greater portion of the depth by Dunster-court), and there it comprised formerly a large quadrangle, which the principal buildings and offices surrounded. The area of the original quadrangle is now appropriated, together with that of the buildings and a fore-court—save that a small yard and entrance-way from Dunster-court, south, are left on that side. By this explanation it will be understood that the plan is divisible into two distinct groups of building. Of these, the group on the western area, next Mincing-lane, now comprises rooms to be let as offices, the offices of the clerk of the company, and a residence for the beadle. A central corridor, lighted from above, leads up to the main building, and separates the clerk's offices, which are at the north, from the residence and yard at the south. The lower rooms are partly lighted by borrowed lights from the corridor, and partly through space got for skylights or cove-lights, by setting the walls of the upper stories wider apart than the width of the corridor. The corridor has adequate architectural character,—the side-lights forming a series of arch-headed openings with French casements glazed with diapered ground glass, and the ceiling-light being arched for the portion of the length skirting the offices and the residence and court-yard. The corridor terminates in what may be considered a porch to the entrance-hall of the main building. This small feature of the design, the porch, is simple, but very effective. It is covered by a hemispherical vault, which pierced for light, is capped with a single piece of glass, perhaps 4 feet 9 inches diameter, ground, and ornamented at the margin. Some of the dressing-rooms are lighted by small lanterns, covered in a similar manner. There is no matter of detail which shows the improved resources of architecture, at this date, as compared with the date of most of the City halls, better than the glazing of skylights. Bars in a circular light, or small panes in lanterns of any kind, are difficult to manage decoratively; and they accumulate dirt so much, that a disagreeable appearance results in many of the halls; and this is particularly remarkable at the India-House. The domical ceiling of the porch we have mentioned, is carried by four arches, and Roman-Doric coupled columns. From it, across the hall, is seen the ascent of the grand staircase.

The main building, filling the larger division of the area of ground, includes a grand hall, or banqueting-room, and a staircase-hall, to both which there is nothing equal in effect in other City halls, and perhaps little in London. We will describe them after we have completed general particulars of the plan. On the ground-floor there are to the right on entering, the "Pensioners' room," lighted by windows in a bow, and a waiting-room, or serving-room, with lift placed between it and the kitchen; and there are to the left the "Binding-room," a "strong-room," and numerous elaborately fitted dressing-rooms and conveniences; whilst at the back of the staircase-hall, is the Court Dining-room, with large bow at the end; the Court-room being to the left of it, and the kitchen, scullery, and waiters' staircase to the right. The staircase is carried up as a distinct structure in the middle of the hall. Two centre flights (broken by a wide landing), in a direct line, but the upper one diminished in the width between the balusters, ascend to a wide "half-pace" landing, whence the ascent turns in the reverse direction, dividing into two narrower flights (the plan will be readily understood if we say, there is a handrail each side of each flight and each landing), leading to balcony galleries or landings completely surrounding the hall on the first-floor level. The landings last named are carried by iron cantilever bearers, concealed; the upper flights of the staircase, springing from the half-pace landing, are carried by raking girders, and by column or stancheon, which is concealed in decoration of *carton-pierre*, in such manner that there are formed two novel features of effect in the ascent.

The lowest flight of the first ascent of the stairs is flanked by coupled columns, as support of the wall above. The supports just alluded to, to the upper flights of the stairs, are in line with the columns on the first landing, and they are designed with rich capitals of rams' heads, basket-like bells, and bracket lateral projections; whilst their shafts, triangular on plan, diminish downwards to a circular boldly-moulded base. Over this lower landing, the gallery of the first floor curves forward. The staircase-hall, square on plan, is covered by an octagon dome, yet to be described.

At the back of the staircase-hall is an ante-hall to the Court Dining-room; and here the wall above is apparently carried by three arches, springing from slender columns. The shafts of these are of dove-coloured marble; and the capitals of veined marble. The actual support to the wall above, is a wrought-and-riveted iron girder. The effect might have been somewhat more satisfactory, had the columns been more massive. Dove-coloured, black, Purbeck, and other marbles, and polished red and Haytor granite, are freely used throughout the principal parts of the building. Sculpturesque embellishment in *carton-pierre*, of superior character, figures and ornament, we may add, also prevail. The hand-rail of the staircase is of dove-coloured marble, and the balusters are of *carton-pierre* on core of metal.

The rooms on the first floor are the Livery Drawing-room, extending over both the entrance-hall and the pensioners' room, the Court Draw-

* To be continued.

ing-room to the north, the Great Hall at the back, and serving-rooms to the south.

The angle of the building, bounded by the court-yard, and by part of Dunster-court, is faced with Portland stone; and the two fronts here display much decorative detail and carved ornament, though not so much as the front to Mincing-lane. There are two stories of arch-headed windows, with architraves and cornice mouldings; over the windows are introduced various ornaments from the arms and badges of the company; and the coins, and the piers of the projecting bow, have pilasters with elaborate capitals and ornament in panels. There is great feeling and taste in the design, and great skill in the execution, of the details, both in the Mincing-lane and the Dunster-court parts of the exterior. Mr. Kelsey was the carver. Possibly the impression derived would have been even better had there not been in some respects an appearance of *imitation* of the style, the Renaissance, which has been worked upon. Defects and weaknesses in some cases certainly are copied, both needlessly, and to the lessening of the character of the original art-work which elsewhere there is.

The entrance-hall has a marginal pavement of Minton's tiles, but is generally plain in effect, by comparison with some other portions of the building—the full effect of the staircase-hall scarcely appearing, except from the first landing of the stairs. Sculptured enrichment will probably be added. The Court-room is lighted by very large windows, with sashes glazed with diapered glass. The fireplaces are under the windows, and have massive dove-marble slabs and jambs, in good taste. The Court Dining-room has five lights in the bow, divided by columns having polished red granite shafts, enriched capitals in *carton-pierre*, to be painted, and Purbeck marble bases. These columns are on pedestals, which have dove-coloured marble cornices and bases, black marble plinths, and polished Haytor granite dados. A similar system we may now say is adopted, on a more extensive scale, in the similar features of the great hall, where there is a podium; and a distinct species of marble—a Devonshire warm-toned variety—is used in the bays, between the pedestals which support the columns. The doors of the Court Dining-room have circular panels over them, under archivolts, with rilievos. The chimney-piece is of black marble and bronze, by Potts. The doors and jambs throughout the building are of polished wainscot. The architrave mouldings and cornices are of painted wood, with enrichments in *carton-pierre*.

On the first floor the Livery Drawing-room has a segmental ceiling, with oblong and hexagon-formed panels, with enrichments, and a band of rich festoons at the springing of the curve. The cornices and friezes of the doors, the friezes pulvinated and fluted, are well treated. In the Court Drawing-room there is less decoration at present, but the friezes of the doors are here enriched with rilievos of animals and ornament. The Great Hall, though it has some slight resemblance in its general form to a Parisian work which we have illustrated,—the Gallery of the Hôtel de Ville,* is a thing of which the company and their architect may be proud. Decoratively, indeed, it may be inferior to the Gallery at Paris, where the columns are disengaged, not three-quarter columns. It is 80 feet by 40 feet, length and breadth, and 40 feet in height in the centre,—or, as to length, half that of the Gallery, the other dimensions being about the same. An order of Corinthian three-quarter columns, with the polished red granite shafts, and the pedestals and podium of coloured marbles and granite, surround the walls, the intercolumns being filled in with windows on one side, and arch-headed recesses, chiefly for mirrors, on the other, the archivolts springing from richly ornamented pilasters. Two recesses at the principal end of the hall contain statues of honoured members of the company; and the centre recess behind the president's chair, having greater depth, will probably enclose a *buffet* to exhibit the cup of Samuel Pepys, and other plate. At the opposite end of the hall, behind the columns, is a gallery for musicians, appearing as three separate balconies, in the intercolumns, supported by ornamented shafts which form a framework to mirrors. The mirrors can be raised sufficiently, to pass in what is required from the serving-rooms. Above the entablature of the order, the frieze of which will be enriched with ornamented panels for names of eminent members of the company, there is a series of lunettes filled with stained glass; and the arches over these, groin into a deep cove to the ceiling, which last is formed in one deep panel, divided into coffers ornamented with rosettes. The whole of the upper part of the hall is profusely enriched. The spandril spaces of the cove have alto-rilievos personifying the principal cities of Great Britain and Ireland: on the soffits of the arches, over the lunettes in which the stained glass displays the arms of the "twelve companies," are the names in each case of a founder of the company in gilt letters in an ornamental panel; and the cove is separated from the cornice, or mouldings, of the plafond or oblong panel of the ceiling, by a roll moulding enriched with fruit and flowers. The chandeliers will hang from the points of the groining at the summit of the cove. Ornament also is introduced in spandrils to the arches in the intercolumns. The whole of the *carton-pierre* work in the building has been executed by Jackson and Son, and we have seen nothing surpassing it. The stained glass is too heavy and dark.

The decorative features of the upper part of the staircase are clustered Ionic pilasters, and archivolts with enriched mouldings, and the architraves and cornices of the doors, which open on to the landings. The angles of the square plan, pendentives, or spandrils, joining the square with the octagon, are ornamented with shields and branches of foliage. The octagon dome, 27 feet in span, starts from a bold cornice with trusses; it is divided into variously-formed compartments by enriched bands, all the principal compartments being glazed with ground glass, with a pattern in light blue thereon. At the top is a small open lantern. The effect of the dome, with the method of lighting, is novel and good. As a piece of construction also, this dome is interesting. It is framed in timber, with a curb or continuous shoe of iron, forming a ring at the foot to prevent whatever there might be of thrust, the corresponding curb at the base of the lantern being in short lengths of timber. Thicknesses of timber, or board, bolted together, appear to have been preferred to the use of whole timber of large scantling. The external covering, including rolls, labels, cornices, trusses to the lantern, and whatever else, is wholly of 8 lbs. lead—the same as is used in the gutters. The "dressing" has been deftly executed, and is a very praiseworthy specimen of plumbers' work. Mr. Taylor, of Clement's-lane, was the sub-contractor employed.

The general contractor for the works was Mr. John Jay. The amount of contract was 36,000*l.*; but this may be raised by extras and fittings, to 40,000*l.* Mr. John Brodie is the clerk of the works. The kitchen-apparatus was supplied by Baily and Sons, of Gracechurch-street, who also supplied the ornamental metal-work. Of the front in Mincing-lane, we need only say that many of its details are beautiful in design and execution, especially those of the entrance doorway and windows of the lower story. Much of the carving of the upper part of the building, as the chimeræ on the pedestals of the balustrade would probably deserve better inspection than can be given in so narrow a street. Mr. Samuel Angell, our readers know, is the architect.

* See vol. xiv. 1856, page 487.

ON THE APPLICATION OF DEFINITE PROPORTIONS AND THE CONIC SECTIONS TO ARCHITECTURE, ILLUSTRATED CHIEFLY BY THE OBELISK.*

ALTHOUGH the clothing of the column with the entasis has now become so received a practice with us that no common workman hardly would think of putting up one with perfectly straight sides, few architects have as yet accepted into their practice the same principle of entasis in the long transverse lines of their buildings, although I fully feel with Vitruvius that, in order to gift them with complete sufficiency, these also require a slight compensatory treatment. One quotation from Vitruvius, to bear out that this treatment was also carried into the upper part of the structure. "The capitals, being completed, are to be set on the tops of the shafts,—not, however, level throughout the range of columns, but so arranged with a gauge as to follow the inclination which the small elevations in the stylobata produce." Thus a slightly curved line of upward entasis is produced in the range of the capitals or tops of the columns as well as at their bases. So far Vitruvius, and now we turn for a short space to some results of the investigations which have been made of late years at Athens with respect to the lines of her ancient architecture, in which we shall find that the strange omission of entasis by Stuart has been amply supplied and rectified by examinations made on the spot by Mr. Pennethorne, Mr. Cockerell, Mr. Donaldson, and Mr. Penrose; and the elaborate work by the latter gentleman has now become the text-book on the subject. * * *

I will not go further into the adjustments of smaller details, having only space for broad features. I am now about to compare the elevation of the obelisk with that of the front of a Greek temple. Although of very different proportions, the two general features possess similar elements: these are the lower and upper transverse lines, the sides, and the roof lines. The shaft of the obelisk answers to the colonnade and entablature, and the pysamedia to the tympanum. In this way we may accept as a general postulate that the front of the temple is a very wide, short, obelisk, and the obelisk a very tall temple. We have seen that the sides of the columns of the Parthenon taper and slope inwards: so do the sides of the obelisk; and we have also seen that these columns do so not with straight sides, but with sides of very delicate entasis. I conceive that an obelisk should have a lateral entasis. The lines of the upper step and entablature of the Parthenon have a slight upward entasis; so also in effect should be the case with the analogous lines of the obelisk. I am still doubtful, however, as to the inclined or roof lines of the pyramidion whether to follow the Parthenon or the Theseum. I have tried both, but I think I prefer the straight lines of the Parthenon. I do not wish to push this similitude of the two subjects of art too far, but I think you will allow that they possess in degree the same general elements. I desire, however, now to say a few words on a different and perhaps somewhat novel mode of obtaining a somewhat similar effect of rise in the centre of transverse lines by a different method from that of the Athenians;—that is by a convex entasis on plan instead of in elevation. I have adopted this mode of entasis on plan in the treatment of the obelisk, and hence I naturally came to think of it more generally as applied to other subjects. I conceive that all perfectly plane surfaces, especially when bounded by angles, look somewhat concave. I conceived that the flat surfaces of my obelisk in its first stage did so, and yearned for this correction. I supplied this at first by a convex entasis, or coming out on plan derived from a segment of a circle, for which, however, eventually, I substituted one derived from the flat side of an ellipse. All the faces of this obelisk have thus, in addition to the lateral entasis, an elliptical entasis on plan of very delicate sagitta all the way up. As, therefore, this treatment runs from the base of the shaft to the apex, it adds a slight upward arch to the base of the pyramidion, and to all transverse lines which might be put in the way of inscription on the shaft. This entasis on plan has been acknowledged, and I think I may say is recognized, as an improvement to the obelisk. And the question naturally occurs, might not this treatment have its advantages in subjects of more extension? as it not only gives a certain fulness and fluency to the surfaces, but gifts all transverse lines above the eye with the compensation of delicate entasis, even while the beds of structure remain actually flat. It is chiefly when transverse lines are long, and subtend a large angle to the eye, that they most appear to droop in the centre. When, therefore, the front of a portico is far off, these transverse lines do not require so much compensation as when near.

A SLIGHT HISTORIC SKETCH OF OBELISKS.

Having now occupied some time in these remarks on the curvilinear treatment of surfaces, I will, if you please, before I begin to illustrate my own views as to their application to the obelisk, vary my paper by some account of the ancient history and existing examples of that remarkable unit of architecture.

In the primitive state of the world nothing was more ready as a record of an event than to set up a stone in the place in which it occurred. Thus, as the Bible informs us, did Jacob set up in Bethel the stone which had been his pillow, in record of his dream and the promise made to him, and the vision on that spot. "And Jacob rose up early in the morning, and took the stone that had been his pillow and set it up for a pillar." Subsequently, it is supposed from this type, these consecrated stones were not unfrequently called baituloi, or beitile, from Bethel. There is also another word which occurs in the Hebrew of the Bible, "Matsebad," which is in some instances translated "pillar," and at others "image," when it is apt to be thought to indicate a human figure. It appears, however, rather to have been used to indicate a high stone or obelisk. Selden, in his "De Jure Gentium," says, "nor while the word 'Matsebad' is translated 'statue' does it signify

* Read by Mr. John Bell, at the Society of Arts, on Wednesday, May 25th.

what statue ordinarily does, *i. e.* the human figure." Spencer also agrees that it indicated a column or a huge stone, rather than a human figure. Sanchoniathon states that the Phœnicians, and afterwards the Egyptians, consecrated columns to those who benefited mankind, and to the elements. Clement, of Alexandria, quoting an old author, says that the Delphic Apollo was originally a column; and on the old coins of Apollonia that deity is recognized by the representation of an obelisk little different from those of Egypt. The reverence for the sun, indeed, one of the purest forms of early profane worship, seems to have been often connected with the erection of the obelisk, which, from its being pointed at the top and increasing at the base, bears the general form of a ray of light (coming towards us), of which, according to some old authors, the obelisk was intended to be expressly a representation. Mr. Bonomi considers the image of gold set up by Nebuchadnezzar, on the plain of Dura, to have been by no means the statue of a man, but a gilt obelisk. It is at the commencement of the 3rd chapter of Daniel that the words occur, "Nebuchadnezzar the king made an image of gold. The height of it was three score cubits, and the breadth thereof six cubits. He set it up in the plain of Dura, in the province of Babylon." Thus, as regards the proportions of this image, the height was ten times that of the breadth, which it is evident is wholly inconsistent with any proportions of the human frame. On the other hand, it agrees closely with those of the more graceful Egyptian obelisks, of which the whole height is usually about ten times that of the side of the base. Mr. Bonomi, therefore, appears to be well borne out in his view, that this image of gold, set up by Nebuchadnezzar, was not a statue of a man, but, in fact, an obelisk, gilt. It may also suggest itself, that the worshipping commanded by the king was in some sort connected with the worship of the sun, of which fire was the worshipped type, as it was also a "fiery furnace," to which those were condemned who would not fall down and worship before this great "ray of light." This, of course, was the abuse of a fine feature of architecture,—no unusual occurrence, as even the most beautiful temples of the ancients were raised not unfrequently to deities of the most atrocious character.

The obelisk of the most extraordinary proportions of which ancient writings give us any record, was that of Queen Semiramis, which is thus described by Diodorus Siculus:—"Semiramis likewise caused a great stone to be cut out of the mountains of Armenia, 125 feet in length and five feet in breadth and thickness" (so that it was twenty-five times as long as it was broad and thick). "This," Diodorus continues, "she had conveyed to the river by the help of many yokes of oxen and asses, and there put it on board ship and brought it safe by water to Babylon, and set it up in the most remarkable highway of that city, as a wonderful spectacle to all beholders. From its shape it is called an obelisk (*obelos* in Greek, signifying a spit), and it is accounted one of the seven wonders of the world." If this account of its proportions be correct, I cannot conceive it could have been beautiful, although it certainly was a wonder. It must have been secured in its erect position, I suppose, by being sunk in a socket, which treatment is applied to the Egyptian obelisks, but solely to the degree of preventing their shifting on their bases. Obelisks appear to have been as wide-spread as they are a simple feature in architecture. Indeed, they seem a form which is the common heritage of man, closely suggested also by nature; as, for instance, by the Needles in the Isle of Wight. As the pyramid is a kind of scarped mountain, so is an obelisk a splinter of rock fashioned on four sides, and, from its monolithic nature, more lasting than even the pyramid itself. In Maurice's "Indian Antiquities," a sacred stone of this character is described by Captain Hamilton as existing in the Temple of Juggernauth. In the British Museum there is an Assyrian example, truncated, from Nimroud, in black marble, used, by means of relievi, as a record of events. As a feature of art, the growth of the obelisk is evidently after this fashion. It first appears as a rude solitary stone, set up on end, of a long form, like the pillar of Jacob at Bethel. Then, gradually, as the arts advanced, these features were fashioned and inscribed so as to become what Strabo emphatically calls them, "Books of History," the legitimate use of the obelisk surface being for inscription. Their use as such enduring and dignified records appears by no means, however, to have been confined to Egypt, as Sanchoniathon expressly tells us they were erected in Phœnicia prior to their adoption in Egypt. Yet it appears that it was in the latter country that they were most developed, the granite on the banks of the Nile lending itself so aptly to this purpose. Having thus indicated the extreme antiquity of these features of art as symbols, and as records of great historic events, we will proceed to some consideration of the best examples of those which remain to us, and will turn first to those of Egypt, which were transported to Rome by the Cæsars, and which still, after the lapse of so many centuries, and under its total change of dynasty and religion, still exist among the most striking decorations of that great city.

THE EGYPTIAN OBELISKS IN EUROPE.

I will preface, however, what I have to say of the Egyptian obelisks in Rome, by a list of those contained in Europe. In the British Isles we have four, but they are all small. The largest is at Corfe Castle, and does not exceed 22 feet in height. There is one at Alnwick, the seat of the Duke of Northumberland; and two smaller ones, truncated, in the British Museum, of black basalt. In France there is one at Arles and another in Paris, which most of my audience have probably seen, where it forms the centre decoration of the Place de la Concorde. In Florence there are two; in Constantinople, two; and in Rome, twelve. Thus, altogether, there are in Europe erect twenty-two of these features of Egyptian art, which have been transported from time to time, with great care and attention, from their native land. Those in Rome are, for the most part, important in size as well as number. Also they were the first removed from Egypt, the Emperors of Rome appearing to have had a perfect passion for Egyptian obelisks.

The largest obelisk now existing in the world is that called the "Lateran," from its situation in front of the Lateran Basilica in Rome. This splendid obelisk, originally, as it appears, 105 feet high, in one block, was, in the first instance, erected at Thebes, in Upper Egypt, in the propylæum of the Temple of Ammon Ra. Pliny says, this took place during the reign of Rhamses, king of Egypt, during the Trojan war, *i.e.* nearly 1200 B.C. But obelisk readers discover on it also the name of Thothmes III. or IV. the fifth king of the eighteenth dynasty, who is the same as the Mœris of the Greeks, so celebrated for the formation of the great lake which took his name. Ungarelli assigns to it an antiqnity of 1740 years B.C.; and it now stands in the Lateran at Rome, a sufficient proof of the lasting nature of these records, having lived, as Mr. Burgess remarks, through the ruin both of ancient Egypt and ancient Rome. Pliny, who tells the tale of its being first set up in Thebes by the King of Egypt, thus narrates:—"When it was on the point of being elevated, the king, being apprehensive that the machinery employed might not prove strong enough for the weight, with the view of increasing the peril that might be entailed by due want of precaution on the part of the workmen, had his own son fastened to the summit, in order that the safety of the prince might, at the same time, ensure that of the mass of stone." This, probably, is but an old tale, yet it points to the value and importance which was attached to these monolithic monuments in old times, and the degree to which they were cherished. The same author further narrates, taat "it was in admiration of this work that, when King Cambyses took the city by storm, and the conflagration had already reached the very foot af the obelisk, that he ordered the fire to be extinguished; he entertaining a respect for this stupendous work which he had not entertained for the city itself. After remaining for more than 2,000 years on its original site it was floated down the Nile by Constantine to Alexandria, that emperor intending it to embellish his new city on the Bosphorus. His death, however, occurring before this was accomplished, his son, Constantius, preferred to have it conveyed to Rome. In a vessel provided with 300 oars he caused it to be brought to Ostia, and thence up the Tiber to the Vicus Alexandri, a small landing-place about three miles below Rome. From this place it was dragged slowly, on low-wheeled waggons, to the Circus Maximus, on the spina of which it was set up A.D. 357. Of the time when it fell from its base we have no record. In 1588 it was discovered lying interred to a depth of nearly 20 feet, and broken into three pieces. It was re-erected in its present site, near the Lateran Basilica, by the celebrated architect, Fontana, at the orders of the energetic Pope Sixtus V."

The next example of the Egyptian obelisk in Rome, in point of size, is that which now stands in the centre of the Piazza San Pietro, in front of St. Peter's. This is, according to Mr. Bonomi, 83 feet 2 inches in height. It was brought from Heliopolis, in Egypt, to ornament the circus afterwards called that of Nero. "The main interest, however, attached to this obelisk," Mr. Burgess says, "arises from its being the subject of the first experiments of setting up a fallen obelisk in modern time, and on its being in one unbroken mass, weighing 331 tons." * * *

THE OBELISK OF DEFINITE PROPORTIONS AND ENTASIS.

Up to this, with the exception of the suggestion of entasis on plan, what I have put before you has been greatly composed of the words of others, chiefly of those of the late Mr. Legrew, the Rev. Richard Burgess, and Mr. Bonomi. I now, however, come to a portion of my theme in which I am unavoidably obliged to recount my own doings in regard to the addition of definite proportions and entasis to the obelisk. I do not set this forth as an isolated example, but merely as an illustration of a principle, as I have already shown. However, I shall not attempt on the present occasion to apply this to any further feature of architecture, but will confine myself to an account of how my obelisk came to be associated with definite proportions, and the curves of the conic sections; and this merely as an abstract question: also I am obliged to go into some narrative details.

My attention was called to the subject of obelisks some years ago, by my having selected this feature as the principal one in a design I made, at that time wholly privately for myself, for a memorial of the Great Exhibition of 1851. In sequence of this, and in looking at two or three other obelisks, especially those models of Egyptian obelisks presented to the British Museum by Mr. Bonomi, it appeared to me that what I described at the outset of the paper strongly attached to them, viz. that there was an apparent weakness and insufficiency in their form, and that their sides looked concave. I at first attempted to remedy this defect, by contracting the shaft at the top, by sloping the sides more, still, however, keeping those sides straight. But this did not answer. The proportions of the obelisk were marred thereby, and the apparent concavity was but little if at all obviated. On this I determined to put in practise an idea which had been floating in my mind for some time; that was to add entasis to the sides, analogous to what the Greeks did to their columns. For this purpose I had a cast of my little obelisk split down the centre of the four sides, and opened out at the top somewhat more than the due proportion, so as to allow for rounding the sides upwardly a little. The divisions being filled up level with plaster. I then rounded the sides with a gradual but almost imperceptible entasis upwardly, until I had done away with the look of concavity. I did this with rasp and sandpaper until I had satisfied my eye, and I confess the result pleased me. This was the first step. When, however, I had done this, I conceived the surfaces to look somewhat concave horizontally on plan; and, that I might obviate this, I determined to make these slightly convex horizontally, by a segment of a circle bowing outward. For this line, however, eventually I substituted a segment of the flat side of an ellipse, as more suitable for an obelisk, and for the purposes of inscription. I then carved the top transverse lines and surfaces of the pyramidion and so on, until not a straight line was left on obelisk or base. These were all, however, of very delicate entasis, only compensatory, and in execution from the scale and material of my model necessarily incomplete. About this time I had taken the opportunity of setting forth somewhat prominently a proposal that the principal features of the memorial of the Exhibition of 1851 should be a polished monolith obelisk, of British granite, with all the names of the countries that contributed inscribed on it, combined with a public drinking-fountain, to be placed in the centre of the site of the Exhibition in Hyde-park, suggesting in this case the introduction on the obelisk of entasis. In consequence of this, I was invited by the Royal Institute of British Architects to lay my views before them of the principle of the entasis applied to the obelisk. This I had the honour of doing in May last, now just a year ago. At the commencement of that evening a most interesting paper was read by the Rev. Mr. Burgess, "On the Egyptian Obelisks in Rome, and Monoliths as Ornaments in Great Cities," in which he recommended their adoption here. This introduced my paper, from which, if you please, I will read two or three extracts. * *

EVOLUTION OF DEFINITE PROPORTIONS IN THE OBELISK.

As regards my own attempt at a solution of

this problem of applying curvilinear treatment to the obelisk, I have now brought you up to my progress in May last, when, as I informed the Institute of British Architects, I had only made a little sketch on the principles I spoke of without going into the refinements of detail for which the scale of this was not adapted. Circumstances, however, have since called on me to make a larger model, some 20 feet high, which has afforded me the opportunity of carrying the problem considerably beyond the point at which it then rested.

In my first little model I had adjusted its proportions and lines solely by my eye, and executed them actually by what in homely phrase is called the "rule of thumb." Now, however, that I have enlarged and completed one executed by workmen, I had, of course, to furnish them with definite proportions to work by. I thus, for the first time, began to measure my little model, when the following coincidences came out, one after another, quite unexpectedly, between what I had done merely by the eye and a consistent code of definite geometric proportions. In the first place I found, with my compasses, that the diagonal of the base of the pyramidion was exactly equal to the side of the base of the obelisk. This was the first step, that the diagonal of the base of the pyramidion was equal to the side of the base of the obelisk. In searching further I found also that this gave the exact vertical height of the pyramidion itself. So here was a treble coincidence, of the most simple and definite nature, that the diagonal of the base of the pyramidion, the side of the base of the obelisk, and the vertical height of the pyramidion, should be all one and the same measure. Encouraged by this, I hoped that on applying this fortunate unit of measurement to the whole height of the obelisk, that I might be so favoured again as to find that it formed some aliquot part of this. But, no, it would not fit any way, either to the lateral or vertical measurement of shaft or whole obelisk. The measurement broke down altogether, and I was at fault. Having, however, found already that the diagonal of the pyramidion gave the side of the base of the obelisk, it soon occurred to me to try the diagonal of that base (that of the obelisk itself), which though growing out of the other, was a new measurement; and, having taken this, I began with my compasses walking up the vertical height of my obelisk, 1, 2, 3, 4, 5, 6, 7, when, to my surprise, and, perhaps you will smile when I add, to my great satisfaction, I found that I had landed with the seventh stride of the diagonal of the base exactly on the apex. Thus, seven times the diagonal of the base of the obelisk was the exact measurement of the vertical height of the obelisk. So here were all the general proportions of my obelisk exactly defined by one simple code of exact geometric proportions, of which the pyramidion was the key and pivot, and this arose quite unexpectedly out of a little obelisk which had been adjusted solely by the eye. More than one of those who assist me in my studio are here to-night, who witnessed the progress of my obelisk. They know I have not, in the least, "cooked" my account. I dare say no one will suspect me of not being quite open, but it is pleasant to have proof at hand if required. The original little model also is in my studio at Kensington, and I shall be most happy to show it there to anyone who may take an interest in the problem. As regards the number 7, as it is an element of so many things of great import, and characterized, as it is, as "the perfect number," I own it was a satisfaction that it should be that one which came in of itself to complete the code of definite proportions. In the Parthenon the proportions have been stated by Mr. Penrose to all bear relation one to another, and to be mostly composed of mutual aliquot parts, and Mr. Jopling has carried this still further. He has published a measure which he calls the pivot, and which is the difference between the diameters of the top and base of the shaft of one of the columns of the Parthenon, and which is also derived geometrically from the inscribed square of the top of the shaft. Seventy-two of these measurements give the breadth of the Parthenon, and 162 its length, and 10 of the same measurements the space between centre and centre of the columns. In like manner all the proportions of my obelisk possess a direct geometric relation. Taking a base of a cone of which the vertical height is equal to its diameter, the inscribed square is the base of the pyramidion, and the circumscribed square the base of the obelisk, and so on. An agreeable presentation arises from this, for you have only to strip a cone of this proportion (viz. one of which the vertical height is equal to the diameter), from the apex down to the inscribed square at the base, when you discover a pyramidion of the exact proportions of that of the obelisk, which is in turn the key to all the other proportions of the obelisk.

APPLICATION OF THE CONIC SECTIONS, AS ENTASES, TO THE OBELISK.

This application of the cone to the pyramidion will serve to introduce the second portion of my treatment of the obelisk, that of applying the conic sections to clothe it with its various entases. You know the simple conic sections are of five different characters. Firstly, there is the sectilinear one through the apex, of which a side of the pyramidion is an example. Secondly, the circular, cutting the cone in a plane at right angles with the axis. Thirdly, the ellipse, cutting the cone across, but not at a right angle, but slanting as it were. Fourthly, the parabola, which is a section parallel to the side of the cone, and which would never cut the cone, however much produced. And fifthly, the hyperbola, which, from its direction further approaching that of the axis still wider, avoids cutting the cone across. Lines derived from each and all of these qualities of section come in to complete the obelisk and base, and to endue with a compensatory fulness what the definite proportions, by themselves, only left a kind of rigid skeleton cone. I will not go now into the details of the mode of obtaining the hyperbolic line, which I adopted to give the lateral entasis of my obelisk, as it would occupy too much time. I would only say that my assistant on this occasion considered it should be struck from a point on a level with the base of the obelisk. I thought this would give too much entasis, as it proved eventually, and I therefore desired him to strike the entasis from a point on a level with two diagonals of the base below the base, as in the case of the columns of the Parthenon, when another very curious and unexpected coincidence came out, viz., that I had, without knowing it, and only to please my eye, made the base on which I had placed my obelisk exactly these two diagonals in depth. So that the entasis was struck from the ground line of the basement, as is the case with that of the Parthenon columns. There appears a principle in this and the entasis thus obtained, for the obelisk (by Vignola's method with a minute correction) came out quite satisfactory, being just compensatory and no more. The sagitta of this curve is little more than an inch on the elevation in an obelisk of 77 feet 9 inches in height, being, however, of course more on the angle. This entasis is less than the entasis on the columns of the Parthenon, but somewhat more than that on those of the Erectheum. The elliptical entasis on plan, which I adopted for the surfaces of the obelisk, has a sagitta of one-third of this. This entasis on the horizontal plane runs over the top of the shaft, and only vanishes at the apex. Thus all the eight surfaces are curved with lines derived from conic sections. The same treatment, in conjunction with lines derived from the parabola, is also applied to the bases which support the obelisk; and lastly, the circle, as the base of the cone in the lower compartment of these, in conjunction with the square, forms in its one circumference the four basins of the drinking-fountain. Thus the solution of this problem has been guided throughout by the conjoined working of all the five simple conic sections, together with the perfect number seven and a code of definite geometric proportions, of which each bears a direct relation to every other.

CONCLUSION.

I will not go further into the minor details of this obelisk, although there are several other results of the same characters which have evolved themselves naturally from its code. I would desire, however, to say that I should be very sorry to be thought to presume that the code I have adopted for my obelisk is the sole one to be applied to that feature of art. I am very far from thinking this, although, perhaps, I may conceive that some general points of value may be indicated by the mode of my solution. Even, also, in regard to the conic sections, although I may myself think that these marvellous curves, which regulate the paths of the heavenly bodies, are also those which chiefly form the curves of the leaf, the petals of the flower, and the graceful contours of the female form, yet I am delighted to acknowledge the charm of other natural curves, as the conchoid, the cardioid, and the catenary, &c. as applicable to art. The view, indeed, which I take of the obelisk is that it is a feature of art yet undeveloped, and one which, as far as I can discover, is in the same state in which it was left by the Pharoahs. Also, that it is a feature highly suited to monumental record; and, therefore, from these two causes, offering a fine fresh field for invention, both in regard to general proportion and in minor details. My own I have introduced as a humble illustration of the working together of the eye in accordance with geometric proportions. The illustration may be inadequate, but the general principle, few in these days, I conceive, will be found to ignore, viz. that science and art should work together. The Greeks have amply proved their adherence to this maxim, which I offer as the moral of my remarks to-night. I wish, however, to be understood that I by no means fancy that a work of art is to be built up by the rule of three. To hold that, would, in my idea, be pedantry. We have been endowed with direct perceptions of beauty, which we should be absurd to lay aside, to take up, instead, logarithms or algebra, but as in some sort geometry is the essence of reason, so, rightly applied, it comes in, I believe, to give definition and satisfaction to all forms of art. "Nature" has been said "to work by geometry," and the more art can do so without crippling her more direct and intuitive methods, the better, I fancy, will be the result. In the achievement of forms of beauty, therefore, I hold that the concurrence of definite geometrical proportions may be of the greatest practical use in aiding the eye when once you are so fortunate as to discover that ratio of their code which is in harmony with the subject in hand. Then, also, you have something explicit for your assistants to transfer and work by, and science and art advance hand-in-hand to the result. In undertakings of this kind, the square and circle, mutually inscribed and circumscribed, appear to afford a code of great value, not only as applied to the Parthenon, as shown by Mr. Jopling, and to the obelisk, but also to the proportions of the human frame, as I hope, at some future time, to have the honour of laying before you.

In the progress of the special problem of the obelisk, which I have had the honour to-night of submitting to you as an illustration, I have only now the pleasant duty remaining of returning my best acknowledgments to many who have taken an interest in it. Especially, I desire to acknowledge the liberality of feeling extended to me by the architectural profession. Being a sculptor, and not an architect, and this specially an architectural question, not only have I had no check on that account, but I have received, on the contrary, nothing but assistance and encouragement from that profession. Mr. Angell, Mr. Bellamy, Mr. Bonomi, Mr. Tite and others, have given me especial encouragement, and I have had much assistance from the labours of Mr. Penrose, at Athens. I have, however, especially to acknowledge the direct assistance of Mr. Jopling, a gentleman who is well known as having made definite proportions and scientific curves his especial study. Although certainly the idea and scheme of my obelisk is my own, yet in evolving it the knowledge and suggestions of Mr. Jopling have been of the most direct practical assistance. Perhaps also, in conclusion, the best excuse that I, as a sculptor, can offer for my having taken up this subject at all is to be found in a remark made by that gentleman (himself an architect) one day in my studio, when he said to me, "You sculptors have your minds and eyes so constantly directed to form that your training is especially adapted to educate your perception of proportions and curves."

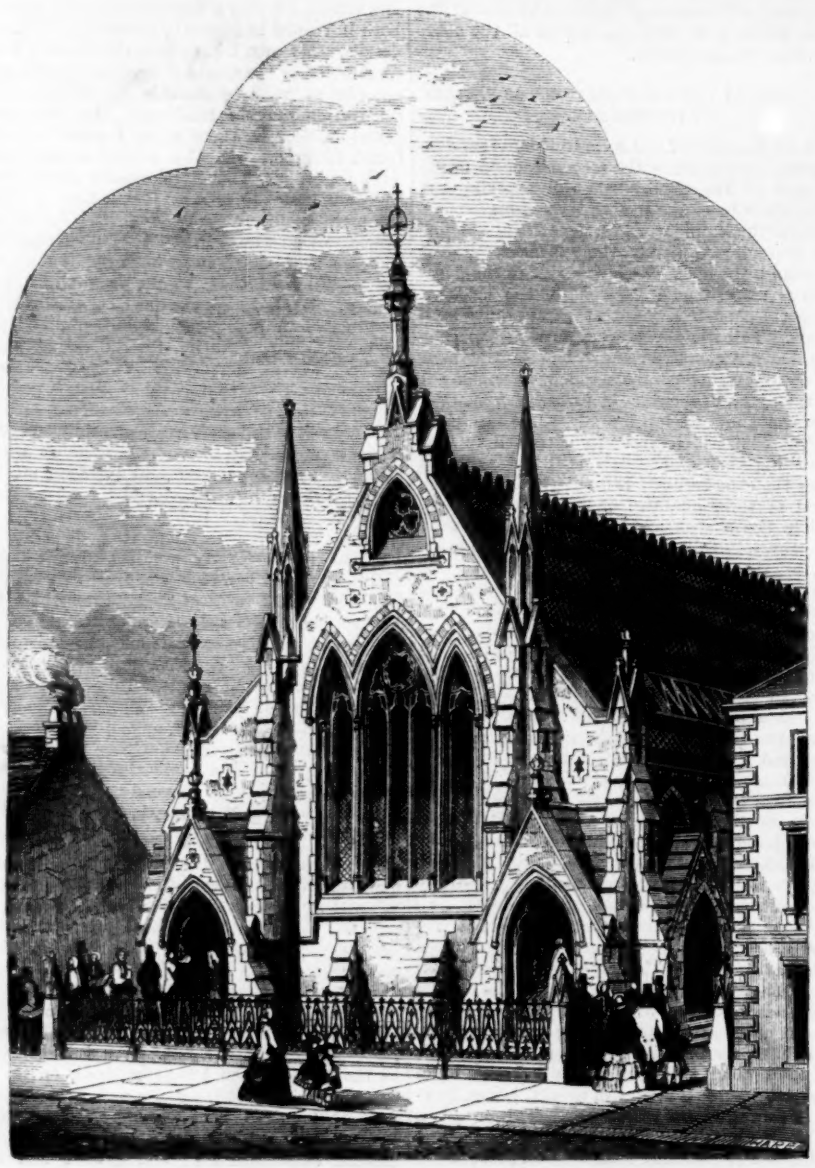
FROM SPAIN.

IT is definitely settled that the new cathedral of Madrid is to be placed beyond the Buen Retiro, on that spot which is at present occupied by the general quarters of the flying artillery, and the gardens of the Palace of San Juan. The cathedral will front the "Salon del Prado," and be approached by a magnificent flight of steps.

By a royal order published on the 20th April, the concession of the railway from Alcaza de San Juan to Ciudad-Real, was adjudged to D. Antonio de Lara Marquess of Villemediana, with a subvention of 15,899,243 reals vellon* for all the line, or 141,369 reals 32 cents per kilomètre, besides the works finished in a portion of the line, let on contract some time ago, from Da Venta De Herrera to Ciudad-Real.

Locomotives circulate freely over the Seville and Cordova line; but, as the inauguration day is not yet fixed, we cannot say when it is to be open for public traffic.

* 96 reals vellon are equal to 1*l.* sterling at the present exchange.



INDEPENDENT CHAPEL, BRIDPORT.—*Messrs. Poulton and Woodman, Architects.*

NEW INDEPENDENT CHAPEL, BRIDPORT.

On the 2nd of May last, the foundation-stone of the above chapel was laid by Samuel Morley, esq. of London, in the presence of a numerous assembly. The site of the new building is in the High-street, on a commanding and central spot. The style adapted is Geometrical or Early Decorated. The exterior is faced with Powerstock rubble-stone, alternated with finely tooled bands of the same stone. The dressings are of Bath stone. The plan is rectangular, with a single span hammer-beam, open roof, an apse in the rear, and galleries at the sides and front. The total accommodation is for about 1,000 persons. The contract has been taken by Messrs. Ward and son (of Bridport) at 2,151*l.* 15s. 3d. including school and class rooms in the rear. Messrs. Poulton and Woodman, of Reading, are the architects who designed, and are professionally supervising the structure.

FOREIGN RAILWAY WORKS.

The Lyons Railway Company have executed during the year 1858 important works on the left bank of the Rhone, as well as on the principal line from Paris to Lyons and Marseilles. The object of the former was to finish off the second line of rails on the Nismes and Alais section, and to extend and complete the Cette, Montpelier, Lunel, and other stations. On the main line a large central "halle" for wines, and a goods-shed for the Customs, have been erected at Berey, near Paris; and on several points new depôts, workshops, coal and coke stores, have been completed, as also a branch line to the maritime railway station of the Joliette. It appears that the construction of the original group of the Lyons Railway has cost, up to 31st December, 1858, more than 528,000,000 francs. The sum to be expended in 1859 on the ancient group will not exceed 20,000,000 francs. As to the progress of the new group, the whole line from Moret to Nevers, also the six kilomètres which separate Nevers from Fourchambault, will be open to the public in the beginning of 1860. In 1858 the outlay upon the new groups was 43,665,000 francs, and the total expense up to the 31st December last was 330,000,000 francs.

On the Lyons and Geneva line, that portion between Geneva and Versoix has been open for some time for traffic with one line of rails only. The works for the establishment of the second line are nearly all terminated: there only remain to be finished, in 1859, the stations and goods sheds. The buildings necessary to be erected at Culoz for the joint services of this and the Victor-Emmanuel lines, and for the double custom-house staff, will be finished next August; and the French and Sardinian customs officers can be there installed on the 1st of November next.

The total outlay on the 31st December last amounted to 110,592,520 francs. There remain to be expended 11,764,000 francs, furnished by the Paris, Lyons, and Mediterranean company; enough to complete the works for the whole line. The total cost will, therefore, be 122,500,000 francs in round numbers. From this we must subtract 7,500,000 francs, representing the value of the Versoix portion ceded to the Friburg company; also a small portion of the junction with the Lyons line, which was not taken into account in the general fusion, and which will easily be paid for by its profits; then we have the cost of the Geneva line as 111,000,000 francs. The Swiss and French subventions (17,000,000 francs) being subtracted, we have 94,000,000 francs, the real cost to the Lyons and Geneva company.

The first section of the Madrid and Sarragossa railway, viz. Madrid to Guadalaxara, has been just completed, and is to be inaugurated on the 13th instant. The length is 56,720 mètres, and throughout the works are solidly constructed. One can form some idea of the magnitude of the works on considering that more than 2,000,000 cubic mètres of earthworks have been made. The structures, not counting the stations, guard-houses, and other buildings, cost 36 per cent. of the estimated outlay for the first section. They are in number fifty-four. Three bridges of importance have been built, that of Jarama being the most considerable. This bridge has a total length of 165m. 84c. and a height of 15m. 77c. from the plinth to the superstructure. The arches and piers are of brick, with cut-stone dressings, cut-waters, quoins, and arch-stones. There are six arches of 20 mètres opening. The foundations were laid on a shifting ground of sand and gravel, 5 to 7 mètres thick. Piles were driven and cofferdams made, from the interior of which the gravel and sand were removed to a depth of 4 or 5 mètres, and the excavation filled with hydraulic cement. Nine hundred piles were driven, and the quantity of water met with was so great as to require the constant use of fourteen or fifteen of Letestu's double-acting pumps.

The second section (Guadalaxara to Jadraque), in length 16,553 mètres, has been in progress since last September, and, if no unforeseen accident occurs, it will be completed in the course of this year.

On Tuesday, the 18th April, after five months of hard work the lower heading of the tunnel in construction on the Hainault and Flanders line, on the section of Renaix to Nukerke, was driven through from out to out, at ten o'clock at night. The Belgian papers give great praise to the Government engineers and to the operative miners, for the precision with which the lines were given and carried out.

The expenses incurred up to the present for the tunnel under the Alps at the Col de Frejus, amount to five millions francs, for a length of 613 mètres which have been pierced, 358 on the Piedmontese side, and 255 on that of Savoy. The cost of the tunnel-heading (full width and height of course) has been up to the present time, 3,156 francs the lineal mètre; say, 120*l.* a yard—an enormous sum.

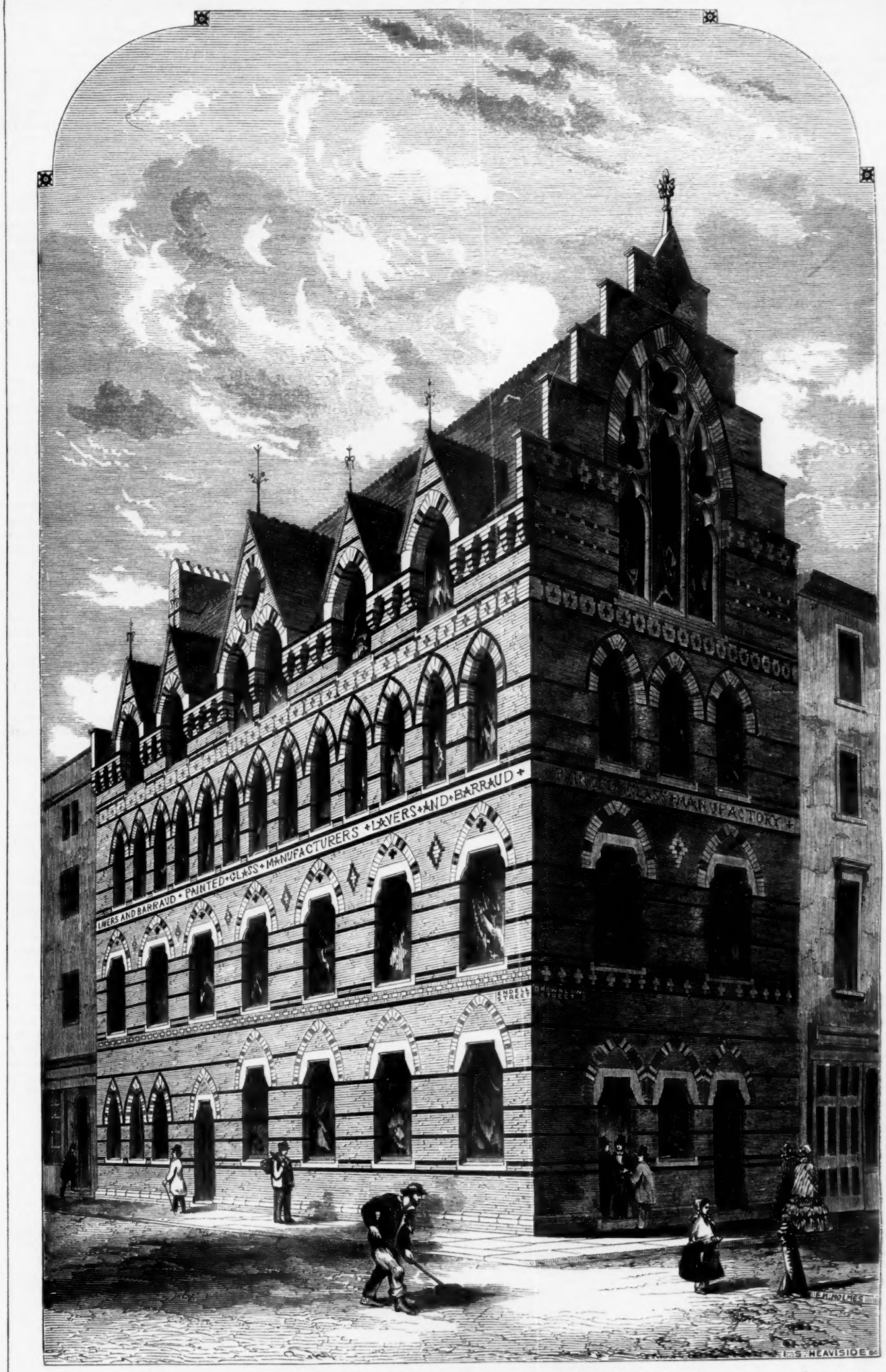
The Western Railway Company of France has decided that the great embankment of the Valley of Eudes, between Pont l'Evèque and Honfleur, shall be replaced by a viaduct, 120 mètres in length, formed of three equal arches. The viaduct will be fifty-two mètres above the soil. Workmen are already engaged in boring to a depth of sixty mètres for the foundations, which will consist of iron tubes filled with concrete.

The Netherlands Government has granted concessions to two lines. The first, from Rotterdam, by Dordrecht (with a fixed bridge on the Hollandsh-Diep), Moerdyk, Bréda, Tilbourg, Bois-le-Duc, Helmont, Veulo, and Rusemonde, to Maestricht, with a branch from Veulo and Rusemonde to the Prussian frontiers, is to be finished, and open for circulation, in six years after the ratification by law, which is to be given immediately. The second, from Flessing, by Middlebourg, Goes, Bergen-up-Zoom, and Rosendale, to Breda, will not be commenced till after the opening of the first for public traffic, and is to be finished in four years at farthest. These concessions are to last ninety-nine years. The State allots a subvention sufficient to cover all the great structures, and grants during fifty years a guarantee of 4½ per cent. on the capital of construction.

PAINTED-GLASS MANUFACTORY, ENDELL-STREET, LONG-ACRE.

LONDON STREET ARCHITECTURE.

This manufactory is being erected by Mr Trehearne, builder, of Drury-lane, for Messrs Lavers and Barraud, the painted-glass manufacturers of Southampton-street, Strand. The building is of red brick with black bands and yellow patterns, forming diapers and strings. The windows of the ground and one-pair floors have Bath stone sills and heads, with relieving arches in different-coloured bricks. The heads of the windows to the second and third-pair floors are formed of brickwork in patterns. The large south windows and tracery to the centre gable in Endell-street, as well as all the sills, are of Bath stone. The gables are stepped and coped with stone. Internally the whole area is kept as large and simple as possible, the floors being merely united by staircase and lifts, the great object being the employment of a large number of men under careful supervision. Economy in space and materials, and cheapness in execution, have guided the design throughout. This building fills up a long vacant piece of ground, and completes the line of frontage in Endell-street. The architect is Mr. Withers, of Doughty-street.



STREET ARCHITECTURE: PAINTED-GLASS WORKS, ENDELL-STREET, LONDON.—MR. WITHERS, ARCHITECT.

WHAT PASSES ON LONDON BRIDGE.

Mr. D. W. HARVEY, the City Commissioner of Police, has published a table showing the traffic over London-bridge in twenty-four hours, from six p.m. on March 16th until six p.m. on the 17th. This paper gives such a striking idea of the immense traffic of the London streets, that we will put a few of the figures in a familiar form before our readers.

The total number of passengers in carriages and on foot amounted, in the twenty-four hours, to 167,910, or at the average rate of about 6,996 per hour, night and day. At the hour from ten to eleven o'clock in the morning the stream of people passed the bridge at the rate of 13,433, or about 224 every minute. This was the largest number of persons who passed during an hour. Between six and seven in the evening was the next greatest throng. During this time the passengers amounted to 13,361; between seven and eight, to 11,931; between eight and nine, to 10,526. The numbers then rapidly declined until between two and three in the morning (when all the world is supposed to be asleep), and even then 200 persons passed over London-bridge. During the next hour the number decreased to 111, viz. 42 in vehicles and 69 on foot. It thus seems that it is between three and four o'clock in the morning that the London streets are the most quiet, and from between ten in the morning until from three to four in the afternoon the numbers decrease until during the above hour the number is 8,337, and then an increase takes place until between seven and eight in the evening.

If we take the above 167,910 as an average of the number of passengers who cross London-bridge during the working days and only half that number on the Sundays, the wayfarers over this great thoroughfare will amount in the year to fifty-six millions. This is nearly as many as twice the population of the United Kingdom. No wonder, then, that the granite should be worn smooth and the ways obstructed. At times, during the throng of business, there are 2,000 persons on London-bridge.

During the twenty-four hours the number of carriages amounted to 20,498, or an average of about 854 an hour. The 20,500 carriages consist of 4,483 cabs, 4,286 omnibuses, 9,245 wagons, carts, &c.; other vehicles, 2,430. Horses led or ridden, 54. The greatest number of carriages in any hour was between ten and eleven o'clock in the forenoon, when 1,764 carriages passed over the bridge.

BLIND WORKERS IN LONDON.

ALL will hear with pleasure of the increasing success of the "Association for promoting the general Welfare of the Blind," and that the Queen has bestowed her patronage upon it. When it is considered that there are in the United Kingdom not less than 30,000 persons of both sexes who are deprived of the precious gift of sight, many of whom are so circumstanced, that they are reduced either to beggary or the workhouse, its importance will be seen. The experience of an old-established institution in the metropolis shows how wonderfully, in spite of blindness, both males and females, of various ages, can be instructed in the means of earning a livelihood, under certain circumstances. In the establishment referred to the blind are accommodated for a time, until they have acquired a certain amount of skill; and the benefit conferred has been great, for those who have a home and relations are enabled by this means to earn what might not be sufficient to support them if obliged to live separately, but which is a useful addition to the income of a family.

In many cases, however, where the blind are not thus fortunately situated, they endeavour to establish themselves in a neighbourhood where they are known, in order to obtain employment in the trades they have learned. There are, however, many chances against success. The very circumstance of their darkness prevents them from obtaining articles of food so readily and at such a cheap rate as others: they also require help from others, and are not so well fitted to search after business as those who have sight. It therefore often happens that work for a time is scarce, and they are obliged to dispose of their tools and little stock for the purpose of obtaining food and lodging; and thus it happens that many of the blind, even when they have learned a trade, are reduced to poverty.

The changes in the state of society during the last twenty or thirty years have made the condition of the poor blind more hard; for at the time mentioned many of them, like the "Wandering Willy" of Sir Walter Scott, were privileged visitors to the houses of the rich and poor; and in most districts the blind of both sexes were kindly cared for. The large growth of towns, the introduction of a new system of police, and alterations in other ways, have changed the position which the blind formerly held, and left little but the workhouse for those who are poor.

Aware of these difficulties, Miss Gilbert, daughter of the Bishop of Chichester, who is herself blind, commenced, in the Euston-road, St. Pancras, a humble institution, in the hope that she would be able to assist in some measure those who are unfortunately deprived of sight. For some time this estimable lady pursued the experiment without assistance. At length attention was directed to this good idea, and the result is that now 64 blind men and women, 33 of whom were begging in the streets, dependent on private alms, and the rest reduced to great distress for want of instruction and employment, are either supplied with or taught to work. There are, however, 90 blind persons anxiously waiting for admission. Out of the 64 blind men and women, 32 are supplied with work at their own homes, at sums varying from 12s. to 1s. 6d. a week; 24 are instructed and employed by the association, and 8 are engaged in selling the goods of the association. The amount of work supplied to different persons is varied by circumstances; but it is often that those who receive 6s. or so a week from the association are able to increase this sum by working for others: this sum, however, serves as a staff of dependence.

A boarding-house has been opened for pupils and workmen whose homes may be too far from the institution: each man is lodged and boarded for 9s. per week, and each woman for 7s.

It is remarked that this association has been established in no spirit of emulation or rivalry. Miss Gilbert perceived that there was something wanted to make effective the efforts of other associations, by enabling the blind to maintain themselves,—and that was a market for their labour, with the certainty of being able to sell that which the industry of their hands had provided.

It is therefore arranged that at this association the workers shall receive the actual retail price of the goods. This throws upon the association the expenses of the management of the business, rent, and some advances which it is necessary to make to sick or unfortunate workers. In order to meet this, it is necessary to provide an endowment fund, to which Miss Gilbert has contributed 2,000*l.*, and other considerable sums have been subscribed. The necessity for help in modifying the condition of the blind is evident, when we consider that it is entirely for want of funds and sufficient accommodation, that ninety persons are unable to obtain admission; and that if we take the number of blind in the United Kingdom at 30,000, there must be about 10,000 blind persons in the metropolis. The goods made here are of an excellent description, and sold at the same price as at the shops; and it would be a service if those who need such articles were to order them from this depôt. By addressing a note, the blind travellers, who seem to know their way by a sort of instinct to all parts of the metropolis, will call monthly for orders, if desired.

In a recent address the Bishop of London remarked, the whole world are indebted to the blind, to whom God has often poured out an abundance of talent and inward light which compensated for the absence of that outward light of which they were deprived. All blind persons are not gifted with great powers, nor do they belong to the higher classes of society. "There is a vast number of our fellowmen and women shut out from the light of day, who, in consequence of this privation, are exposed to the greatest evils. We know how many in our workhouses are condemned all their life long to a perpetual blank—education never having opened up to their minds those stores which might make some compensation for the trials which God has sent them,—living in a perpetual darkness, both intellectual and outward." The great object of this association is to rescue that class, not merely to find them a home in which they may live, but to restore them to their separate homes, and give them the means of living useful and happy lives.

Unassuming as is the appearance of this institution, there are few places in the metropolis which offer a more interesting sight. The attendants in the warehouse move about with as much celerity as other shopkeepers who can see: they can lay their hands upon the various goods, tell you the price, praise the quality, receive the money, enter sales in the day-book, and, in fact, thoroughly manage the business in such a manner that we can scarcely fancy they are in darkness. In the other parts of the institution are brush-makers, basket-makers (some of the baskets are beautifully made: it is singular to see the blind working with edged tools at box-making, &c.): working in embossed leather, bead-working, mat-making, are all carried on by the blind; and it is not the least striking feature of this industrial scene to notice the singularly happy expression of the countenances of these workers, and the affectionate bearing of one to another.

Providence in its wisdom has given to the blind increased powers in other ways, which, among the members of this association, have been improved by moral and religious instruction. Here is a library of embossed books on various subjects, and a simple apparatus for enabling the blind to write. There is also a museum of natural history, &c. in course of formation, which, by means of touch, will enable those without sight to obtain a knowledge of the nature of objects of which they may have read. The wings of the butterfly are not too delicate for the touch of some of the blind: one intelligent man, in less poetical language, realized the wish of Milton, when he mentioned how brightly the light within was increased by the darkness without. Wisdom "at one entrance" being quite shut out, says Milton,—

> "So much the rather thou celestial light,
> Shine inward, and the mind through all her powers
> Irradiate."

It was a pleasant sight to see the hand-shaking and greeting of the outworkers who had brought their manufactures from their various homes. It strikes us that we have, so far as outward appearance goes, seldom seen a more happy company: it was remarkable, too, to notice how well-informed they were of the current events of the day, the names of popular periodicals, and other matters. Our feelings would lead us to say much more on this subject than we can at present find space for. It is a work so ably managed, and so purely good in its intentions, that we strongly recommend our readers to pay a visit to the association.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

REPORT OF THE COUNCIL.

THE report of the council, read at the annual meeting on May 2nd, commenced with the intimation that the extensive alterations required to adapt the premises in Conduit-street for the purposes of the Institute and other art-institutions have rendered occupation unadvisable till so late in the current session, that it is thought best to bring the usual series of meetings to a close in the present rooms. A committee, consisting of Messrs. Ferrey, Mair, Scoles, and the honorary secretaries, is actively employed in determining the manner in which the seats and fittings, together with the bookcases and furniture, should be placed in the new apartments.

That during the last twelve months the Institute has received an accession of eight Fellows and ten Associates, about the average annual increase of late years: of the Fellows, three were previously Associates. During the same time the Institute has lost, by death, one honorary member, Archdeacon Froude; two honorary and corresponding members, the Chevalier Montferrand, of St. Petersburgh, and the Cavaliere Poccianti, of Florence; two Associates, Messrs. F. T. Digweed and T. C. Tarring; and one contributing visitor, Mr. John Webb. Two Associates, Messrs. W. C. Birch and R. Willey, have withdrawn their names; and one Associate, the late librarian, has been expelled for conduct derogatory to professional character.*

The award of the medals (already mentioned by us) was recited. Concerning the Institute medal it said:—

"Mr. George Wightwick's essay 'On the Architecture and Genius of Sir C. Wren' bore too evident proofs of a master's hand to render his success any way doubtful in competing for the Institute Medal, which, it is to be regretted, ill health prevented him receiving in person. It is highly gratifying to the council that a veteran whose active life and labours had already earned him a well-merited reputation, should now in his retirement from the active duties of his profession prove not unmindful of those premiums which the Institute offers to the emulation rather than to the cupidity of the world of architects."†

"The munificent example set by our noble president in presenting twenty shares in the Architectural Union Company to the Institute, has been followed by our respected Fellow, Mr. Tite, M.P. who has given ten shares, and by Mr. St. Aubyn, Fellow, who has just presented five shares, in the same company. Should the donations be increased

* The Institute now consists of 154 fellows, 139 associates, 13 honorary fellows, 17 honorary members, 80 honorary and corresponding members, and 13 contributing visitors.

† At the next meeting, to be held on the 30th, Mr. Wightwick's paper will be read.

by other friends and members, the prospect of the Institute becoming, in a great measure, its own landlord, would be far from Utopian. To those who may not think fit to present shares, it may perhaps be permitted to suggest the establishment of an auxiliary fund, on the present occasion of removing, to new apartments, in order to meet the heavy demands on the stock of the Institute, by which the annual income will be lessened, while an increase will take place in the rent."

"To the Architectural Exhibition committee, its zealous secretaries, and treasurer, too much praise cannot be given for the spirited manner in which, in face of no ordinary difficulties, they originated the Architectural Union Company, which has carried to a most satisfactory conclusion the intention of providing, in spacious, well-lighted, and well-arranged galleries, that amount of accommodation for the architectural world in London which the Royal Academy denied within its walls; and afforded, moreover, constant means for the display of objects of utility, as well as of artistic merit, connected with building operations, never attempted before the establishment of the Architectural Exhibition.

The council feel that they are expressing the feelings of the Institute, when they record their best wishes for the permanent success of the Architectural Union Company, which has united under one roof 'The Architectural Societies of London.'"

Rehearsing the subjects of the papers read, and the petition as to the elective franchise, the report proceeds:—

"The same unanimity prevailed respecting the necessity for supporting the prayer of a petition on the subject of artistic copyright, before a committee of the House of Lords, about to consider the subject; and a committee of the Institute, consisting of Messrs. Donaldson, Godwin, Hayward, Kerr, Norton, and Papworth, has been named by the council (which had been duly empowered by the meeting), to press the purport of that petition before the Lords. Mr. Cockerell, Fellow, R.A., the council regret, is prevented by ill-health from affording his valuable assistance as a member of the committee.

A discussion in the House of Lords respecting the removal of the Royal Academy from Trafalgar-square, in order to devote the entire present building to the national collection, having called attention to the probable readjustment, if not of the constitution, at least of the working system, of the Royal Academy, a memorial to embody the views of the Institute on the subject was submitted to a special general meeting, and further considered at a second. At a third meeting a modified memorial to the council of the Royal Academy was agreed to in the following terms. [This we have already given.]

The council, in common, it is believed, with all well-wishers to the maintenance in an honourable position of the architectural profession, have felt and continue to feel profound anxiety with respect to the establishment of a more systematic course of education for the student in architecture than has hitherto prevailed. Looking naturally to the Royal Academy as the legitimate source of initiation, the council will seriously discuss and endeavour to originate some movement in this matter, in the event of the Royal Academy failing to provide a more active curriculum than it has heretofore considered necessary. The subject is, however, obviously one of such extent and gravity, that any useful action can be only set on foot by the very hearty concurrence, not of the council or of the Institute alone, but of the whole body of architects practising in the United Kingdom.

In their last report the council entered at some length upon the subject of competitions, especially referring to those for barracks and Government offices, the latter of which had recently taken place. Since then a committee of the House of Commons, presided over by our Honorary Fellow, Mr. Beresford Hope, has investigated the various opinions entertained by competent persons, respecting the several designs selected for the proposed Government offices by the previous tribunal, which consisted *mainly* of non-professional judges. The Government has apparently adopted the views of the parliamentary committee, and availed itself of the power reserved in the printed conditions, to select for execution, from among the designs premiated by the first-appointed tribunal, any particular one, without regard to the relative position assigned to it. The council regret the issue of this competition, as invalidating future reliance upon good faith in similar Government lotteries. Their regret does not extend so far as to include any condemnation of the design selected for execution by the Chief Commissioner of Works and Buildings, but comprehends only the circumstance that he was placed in a position which empowered him to exercise a right of selection, superseding the decision of the first tribunal, by whom the merits of the respective designs furnished in competition had been adjudicated upon with great gravity, zeal, and apparently honourable impartiality.

The attention of the council has been recently invited by Mr. E. Barry, Associate, to another subject connected with competition, namely, the practice which has lately arisen of requiring competitors to undertake the task of deciding upon the designs submitted. The remarks of Mr. Barry are so pertinent that the council feel they cannot do better than record them, as embodying a logical and reasonable statement of the case; impressed with the necessity which exists that competitions (if competitions cannot be avoided) should be conducted in the best possible manner:—'In the absence of any expressed opinion on the part of the profession, it is not unlikely that this mode of determining competitions may become popular with those who conduct such matters, as at first sight it undoubtedly presents an impartial and captivating appearance. Isolated competitors can never hope to oppose with success regulations determined without their knowledge, nor can resistance be made effectually as each case arises. It is obvious that judgment of any kind, which seeks to command respect, should proceed from a person or tribunal of *known* fitness for the task, and it may be doubted whether, in a competition conducted anonymously, and in which the majority is likely to be composed of those who have their reputation to make, this essential condition can be adequately secured. Another point, requiring much consideration, is the difficulty of preventing collusion, fictitious voting, and other irregular acts, when strong personal feelings and private interests come into play, and when the corrective influence of public opinion can hardly be brought to bear. Instances may readily be imagined, when one competitor, who has sent in more than one design, may concentrate his several votes on one of the number; or when he might obtain votes from another competitor, who might feel his own chance hopeless, and who might be actuated by personal friendship or less creditable motives. There are besides many difficulties, such as the compulsory revelation of the names of the competitors, who, having been unsuccessful, may not be desirous of publishing the fact, and also the equality of the authority of the votes, though the relative qualifications of the voters have not been in any way ascertained. This, however, is not the opportunity for entering at length upon the consideration of these difficulties, which may or may not be inherent to the nature of the case.'

The so-called nine-hours movement, among the men employed in the various branches of trade connected with building, must be known to all members of the profession. Though the council did not feel themselves authorized to take a direct part in the controversy between the employers and the employed, when requested to receive a deputation from the latter, they still are willing, as they then stated, to give full consideration to any documents connected with the matter; and while carefully avoiding interference with any social or political bearings, they are free to avow their desire that such an equitable adjustment may be brought about, as may ensure to the men a fair reward for their labour, without over-taxing their physical powers, and to the master tradesmen a just return for the large amount of capital they have invested in building operations. Nor should it, in candour, be entirely forgotten, that the interests of our profession, and of our clients, the public, are very closely connected with a permanent settlement of the points in dispute, which materially affect the cost of buildings of every description.

The urgent call now existing for improving the main lines of communication through this rapidly increasing metropolis has been fully considered, as already stated, at several evening meetings of the Institute. The attention of the Legislature would seem to be now alive to the subject; and the system of railway communication is apparently on the eve of further development, by the completion of the circuit round the metropolis, and by its continuation into the western centre at Charing-cross.

Nor should a word of satisfaction on the intended concentration of numerous artistic and scientific bodies in a new building on the site of Burlington House be omitted; although this society has in vain, again and again, asked to be considered in the appropriation—a request which now, thanks to their own exertions, the members need no longer prefer."

Allusion is then made to the change in the honorary officers, and it is stated that the following resolution was forwarded to Mr. Donaldson:—

"The council of the Royal Institute of British Architects hereby place on record their sense of the invaluable services which have been rendered to this institution by T. L. Donaldson, Esq. whose resignation of the office of honorary secretary for foreign correspondence they have this day to at once accept and deplore. For twenty years that office has been held by Mr. Donaldson, with honour to himself and benefit to the profession, both at home and abroad, and for several years previously to his acceptance of that office the even more onerous duties of joint honorary secretary had been no less sedulously and creditably performed by the same gentleman. No resolution, however powerfully it may be worded, can be adequate to convey a just impression of the council's estimation of such services given for so long a period—so freely, zealously, and with an enlightened jealousy for the conservation, at all times and under all circumstances, of the best interests of the art and its professors. They desire, nevertheless, to place upon their minutes this inadequate record of the feelings of gratitude which they will ever entertain towards Mr. Donaldson, for his untiring labours to uphold this institution, and all that is most worthy of admiration in the cultivation and practice of the fine arts."

"Our fellow, Mr. Francis Cramer Penrose, whose scientific researches into the refinements of Athenian architecture have procured for him a widely extended reputation, has kindly acquiesced in the request of the council, and allowed himself to be put in nomination as Mr. Donaldson's successor.

Of the eleven applicants for examination, who have presented themselves during the last twelvemonths, three have received certificates on the recommendation of the board of examiners, of competency to discharge the duties of district surveyors within the limits of the Metropolitan Building Act. The relative number of unsuccessful applicants may suggest the necessity which the board feel to exist, that certificates should only be granted to those who can show themselves practically as well as theoretically conversant with all the divisions of building operations; matters constantly involving the risk of life and limb to the inmates, as well as the prevention of risk from fire, being now entrusted to the skill and discretion of the district surveyor.

Should any modification of the existing Building Act be introduced into Parliament, it has been intimated to the council that the Board of Examiners would desire to press on the attention of the committee on the bill the justice of the board being constituted on the footing authorized by the Building Act immediately antecedent to the present. * * *

In conclusion, the council must again express their sincere wish that the removal now shortly about to take place to more commodious and becoming rooms, after a fair run of success for full a quarter of a century in confessedly inadequate apartments, may prove the commencement of a new era, marked by still further development in the career of the Royal Institute of British Architects.

Every succeeding year presses more and more strongly upon the conviction of the council the fact, that without the maintenance either of the Institute, or of some society almost identical with it, that high tone of study and practice which it is and ever has been its great object to sustain and support, would rapidly degenerate. The healthy and beneficent action of the Institute can alone be ensured by its thriving and vigorous condition, and that thriving and vigorous condition is absolutely contingent on the life and energy of its individual members. With the prospect, therefore, of removing to more commodious premises, in which a healthy expansion can be developed, which it would have been materially impossible to carry into effect in Grosvenor-street, the council feel themselves justified in calling upon the whole body of the Institute to exhibit in succeeding sessions that unity of purpose and strenuous action by which alone, whether in the fine arts or in any field for the progress of human intelligence, great results are to be attained."

THE CHURCH OF ALL SAINTS, MARGARET-STREET.

SIR,—The completion of a church is always an interesting period. One more has been added to the shrines before which the loving and believing heart loves to bow: from one more place will the glad tidings of great joy be proclaimed: a new source of good, spiritual and temporal, has been opened, from which will go forth ennobling, and holy, and purifying influences. It is still more interesting when the temple thus finished has admitted into its precincts the wealth of material, and costliness of decoration, and glow of colour, which for many a dreary year have been denied to God's house by poverty or prejudice. Until lately it has been considered as wrong, highly wrong, to admit any but the coldest, most chilling combinations into the attempts at decoration made in our churches. All colour, all precious materials, all evidence of delight or pleasure in the service of God, were considered as a going back into mediæval dimness and Romish superstition. Such a state of things could not go on for ever: an awakening among churchmen and artists gave the first impulse to a movement ever since increasing. Ardent minds, who had studied the productions of great and religious men in the domain of art, came forth, and asked "Why a purer faith than these old painters had share in, a faith that professed to give more liberty, more expansion to *all* the faculties of the human mind, than that of the Romanist;—why this more embracing faith should forbid their embodying, in bright form and lovely imagery, their highest, their noblest conceptions; conceptions of scenes crowded with interest to all the human race; not an interest fleeting and changeable, but immutable,—to last, ever fresh in the minds, and be enshrined in the hearts of Christians both now and ever, both on this and on the other side of the grave?" They were right in asking this question: a religious system which shuts out the service of one gift of mind, which denies scope to the employment of one of the talents given of God, is, and must be, faulty somewhere: it is, or should be, the glory of Protestantism that it accepts all kinds of work, of all kinds of talent, all degrees of ability, and offers them to her God. Everything holy, pure, and true in feeling should find acceptance and recognition by her. If a young artist feel his Saviour's life to be lovely, the scenes of it sanctifying, hallowing, and purifying, may he not give us his ideas respecting them? may he not show us Christ's infancy, His life, His death? may he not on these texts preach to us in his own most speaking language, and prove himself a priest, though of a different order, in Christ's church? Surely it cannot be right to say to him, "You are a materialist: we care not for your visions of Christ's life, for your clearer seeing of His divine countenance as He blessed the young children, or mourned over His lost city. We will not have these thoughts of yours in our places of worship. You may place them amid the distracting glare of chandeliers: you may get glimpses of them between the blazing of jewellery and the flashing of bright dress; but we will not place them where they shall be seen and *felt*." Was not this virtually what was said to the young artist? Can we say how many were chilled into insensibility or driven to impure sources for subjects, more congenial, or at least what appeared (from the reception given them) less offensive than those which had their first love and their most brilliant imaginings?

I feel convinced that it is not the way to extend our purer faith, to deny any place to those who would have been cherished by the Roman church. A young artist who feels a strong desire to paint sacred subjects should be treated as an ally of the preacher, not as his enemy. If Protestantism suffers, it will be because she refuses to recognize one of God's gifts *as His*, and to cast away and render useless souls who would have served their God with their art, as fully as ever preacher did with his eloquence. If Protestantism despise either, she will suffer, and will deserve to suffer, because she wishes men to serve God in her way instead of His.

The building which has originated the foregoing remarks I need hardly say is Mr. Butterfield's new church of All Saints, in Margaret-street. Here is a church in which (thanks to munificent patrons) nothing which could add solemnity or dignity has been denied to the architect. Against our long-established parsimony and frigidity of decoration it stands as a magnificent protest. As such, and as a remarkable product of the rising school of Revived Gothic, it is worthy

of attentive examination. I propose, in all diffidence, to embody, in a few remarks, the impressions made by this building on the mind of an amateur, who takes deep interest in the present revival, and who has given the little time remaining after a daily occupation to the subject of art.

The appearance of the church on being approached from Portland-place is very striking: its lofty and graceful spire is particularly pleasing, and, by no means, common-place in treatment! For myself, I could have wished for a deeper cornice at its junction with the tower, as I think it has now a somewhat bald appearance. The colour of the brick chosen strikes one as a little too dull: had it been brighter, it might certainly have looked a little staring for a short time, but the action of the weather, and, above all, of London smoke, would soon have mellowed the tone, while the present will, I think, get only dead and sombre in colour by exposure to these influences.

In plan, the limited space at the disposal of the architect necessarily compelled a somewhat crowded appearance in the structure; but it appears to me very well arranged; the quadrangle and screen adding much dignity to the central object of interest. The screen, in itself, is a graceful part of the design. I should have liked, however, a little more projection in the cornices and gables of the building; as the want of it brings them under the same censure as that I have ventured to bring against the tower.

The sculpture of "The Annunciation," on the buttress facing the entrance, is graceful, but shows a little of the archaism, which is somewhat of a blemish in some portions of the interior.

Passing through a well-proportioned doorway, having jamb shafts of serpentine, we enter the church. The glow of colour and richness of decoration at first somewhat surprise the eye unaccustomed to elaborate ornament, and there is to the last a want of repose, which, however, I doubt not the mellowing influence of time will not fail to produce. The church consists of nave and aisles, a transept and chancel. The nave is of three bays, divided from the aisles by clustered shafts, with bases of serpentine, and capitals of alabaster. The sculpture of these last it is almost impossible too highly to praise. There is a masculine breadth of treatment and vigour not often found in modern works. Seen from the distance across the nave, every stroke of the chisel tells. The mouldings of the arches are bold and grand. Above these (the nave arches) is a very beautiful clerestory, the arrangement of the spaces occupied by the windows being artistic and thoughtful: the whole of this, as well as the roof, is very impressive, the corbelling out of the shafts of the clerestory producing a remarkably striking effect.

The chancel arch, of alabaster, is grand and noble, an excellent and very bold impression being produced by the pilaster-like projection, supported on brackets, and bearing the capital (also excellent in design) and arch mouldings. The screen of alabaster between the nave and chancel is boldly and well treated, and has been most wisely kept low, as have also the stalls of the choir, in order to hide as little of the beautiful and precious work of the chancel as possible.

The design of the tracery dividing the chancel from the transept is beautiful;—to my mind the best designed tracery in the building; pure, simple, and most graceful. The eye is satisfied, and returns to this part of the work again and again. The capitals supporting this tracery are also excellent and powerful in treatment. The sides of the chancel between the transept and the eastern wall are lined with two tiers of alabaster gabled arcades, of elegant and beautiful design, the triangular space remaining between these and the vaulting being occupied by a window of corresponding shape, with tracery of three foliated circles. The bands of ornament which fill these niches I cannot say are to me pleasing, the zig-zag contradicting the lines of the shafts, and confusing the eye. The east wall is divided into three portions, by string-courses of very beautifully designed and well-arranged foliage; the upper one of triangular form, being the space between the vaulting and its springing; the other two comprehending the rest of the wall, and corresponding in height with the arcades on the side-walls. In the upper or triangular space, is the fresco by Mr. Dyce, representing the Saviour in Glory, seated on a cloud, and surrounded by a gilded and rayed vesica: below are saints and angels, in adoration, accompanied by the emblems of the Evangelists. The head of the Saviour is grand, and the colouring pure and beautiful. The spaces below are divided into fourteen niches, the central one of each tier being larger than the rest. In the upper central niche is the Crucifixion a composition of the three figures only, and the most unsatisfactory, as you have said, of Mr. Dyce's works, the arms of the Saviour being in an unpleasantly angular and unnatural position. In the niche below is the Virgin with the Infant Saviour, very simple and dignified, while on either side, each in his separate niche, stand the twelve Apostles—dignified and noble figures—many of the heads being finely conceived.

The vaulting of the roof is covered with elaborate surface ornament. This has been carried too far, however, I think, when the architect so far forgot himself as to gild the alabaster ribs. I cannot help thinking this a barbarism, the loss of the beautiful flushing of the gradated and rich brown of the stone itself being but poorly compensated for by the mere increase of glitter of flat gold-leaf. I have no doubt there is plenty of authority on Mr. Butterfield's side, but this I cannot help; I still think it a barbarism. Over the chancel arch is an elaborate cross, with surrounding ornament, and the first and final letter of the Greek alphabet. While calling to mind the crosses introduced here and elsewhere in the building, I cannot help regretting that they should ALL have been so elaborately ornamented: it appears to me that the simple well-proportioned cross is the most proper, and in the end, the most telling form of the sacred symbol. There is something lowering to its dignity if it be formed of twisted lines like that over the chancel arch, or much elaborated as that forming the support for the font cover.

The grilles dividing the chancel from the transept are light and graceful, though the curves of the scroll work are somewhat common-place. The stalls are very unobtrusive and neat, not interfering (and very wisely so), with the prospect into the chancel. The organ partakes of the same unpretending character. The holy table is of various precious woods. At the south-west angle, and under the tower, is the baptistery: it opens on the east side to the aisle, by a single arch, but is divided from the nave on the north by the wall of the tower; pierced, however, by an arcade of well-designed cusped arches, which admit of entrance through them. The ceiling contains a picture of the emblematical pelican. And here I must again differ from the architect. I cannot help thinking the bird too conventional. There is no occasion for this, and the effect is quite otherwise than pleasing.

I am sorry to be obliged to say that both with pulpit and font I am disappointed. In the pulpit there is great richness of material, but there is want of repose. No colour is sufficiently prominent to give the necessary rest for the eye: all is confused and unsatisfying. The same remark applies, though in a less degree, to the font, the angels on which are, however, very inferior. One cannot help feeling surprised, almost hurt, after admiring, as it well deserves, the beautiful carving of the capitals and other ornaments of the nave and chancel, to come upon faces so flat and unmeaning as these I now refer to. It is my earnest wish to judge correctly, and to give honour where honour is due; but I cannot help regretting the inferiority of the sculpture of the font, and the absence of it, as far as the human form is concerned, in the pulpit. I do not forget by any means the beautiful capitals supporting the latter, but I could wish that the panels had been filled with appropriate subjects, instead of the present unmeaning and somewhat distracting geometrical patterns. I fear I shall be considered very presumptuous when I find fault with the tracery of the windows, which are to me far from satisfactory, that of the west window especially, the central lancet looking crushed by the arches of the lateral lights. The painted glass is not pleasing to my mind, there being too little brilliancy and depth of tone, caused by the over-evenness of modern glass, while the faces of the Archangel Michael, and the two other figures, in the first window, east of the door, are far from angelic.

I have now, at greater length than I at first intended, but still leaving many things unsaid which I should wish to say, offered my mite of criticism on this remarkable work. I most sincerely trust I shall not be thought ill-natured or presumptuous in my remarks. The church is a cheering proof of the strides the Gothic school has made and is still making. I look especially to the sculpture, and I find a most wonderful advance even upon recently erected works. The designs of many of the capitals and other ornamental portions are worthy of comparison with those of the great Gothic period, and give promise of still greater excellence. I hope, and feel almost certain, of much future honour, pleasure, and instruction to be gained and given by our workmen, studying and working, as they must have done, to produce the carvings both in this church of All Saints and in the still more interesting building of the Oxford Museum.

I take leave of this beautiful church with many thanks to its architect, and to the patrons who enabled him to carry out his intention so completely, and to raise such a noble protest against the narrow-heartedness which would shut out of God's house the results of the devotion of His special gifts to His immediate service.

F. A. M.

EXAMINATION OF CANDIDATES FOR DISTRICT SURVEYORSHIPS.

THE examiners appointed by the Royal Institute of British Architects, under section 33 of the Metropolitan Building Act, are the Vice-Presidents, Messrs. H. Ashton, G. Godwin, and R. C. Hussey; the Honorary Secretaries, Messrs. C. C. Nelson and T. H. Lewis; and Messrs. Cole, Fowler, Gibson, Jennings, Hesketh, Pennethorne, Penrose, Scoles, S. Smirke, and Whichcord, Fellows.

After an examination held at the rooms of the Architects, on the 10th, a certificate of competency to perform the duties of district-surveyor was granted to Mr. E. L. Paraire, Mr. A. Cates, and Mr. F. Todd.

COMPETITION.

Colne.—The first premium in the competition for Colne Cemetery has been awarded to Mr. Pritchett, of Darlington, of the firm of Pritchett and Sons.

OPENING OF THE CHURCH OF ENGLAND PAROCHIAL SCHOOLS AT EARL'S SHILTON, LEICESTERSHIRE.

THE public opening of the above-mentioned school premises in the village of Earl's Shilton, Leicestershire, took place on Saturday last, May 21st. The want of schools has long been felt, and through the energy of the Rev. E. Tower, the incumbent, not only was the church rebuilt about four years since at a cost of 3,400*l.* but the school and a parsonage-house have been erected within the last nine months; and lofty, substantial, school-buildings now adorn the summit of the hill upon which the village stands. The first stone of the new schools was laid by the Earl of Denbigh, on Sept. 21st, 1858. They are in the Decorated style of architecture, and consist of two school-rooms, about 50 feet by 18 feet each, one for boys and the other for girls and infants, with a class-room formed by sliding shutters. The basement of the walls is constructed of the native granite in irregular courses, alternately banded with blue and red to the height of about 4 feet, where the stonework is terminated by a moulded brick plinth, and the upper wall or wall proper, which is also of brick, commences. The windows, which are cusped, are of Ancaster-stone. A bell-cot or turret, covered with oak-shingles and surmounted by a metallic cross, rises from the roof of the boys' school near the northern extremity. Although no great pretension is shown internally, a satisfactory effect is produced by the bare, red brick, neatly-jointed walls, and by the arches, windows, jambs, and doorways being finished in moulded brickwork. By the erection of these schools provision is made for the education of from 250 to 300 children, under the superintendence of a master and mistress.

The schools and parsonage have been erected by Mr. Law, builder, of Lutterworth, from designs by Mr. William Slater, of London.

THE DRINKING-FOUNTAIN MOVEMENT.

A PUBLIC fountain has been erected in Oxford-road, Manchester, under the arch of the South Junction Railway. The fountain, which is a combination of red Aberdeen granite and bronze, is fixed in the stone work of the pier of the arch; and the overflow will be gathered into a small basin for dogs to drink at, after which it will be carried by a waste pipe into a drain. —— The Brighton Council have given permission to the Rev. S. R. Drummond to erect at his own expense a drinking-fountain in the open space south of St. Peter's Church; to Mr. G. Cheesman, jun. to erect one of polished granite; and to Mr. W. Blaber, to erect one of polished red Aberdeen granite, against the Riding School in Church Street.——The subject of drinking-fountains has reached the lecture-rooms in this district of the country. A lecture "On the Origin, Progress, and Utility of Public

Fountains," has been delivered at Lewes, by Mr. George Smart, hon. sec. to the Brighton Central Fountain Committee. The lecturer stated that there were now 250 fountains erected in the United Kingdom. In Brighton it was intended to erect not less than 20. The Mayor would open the first two to the public early in June, and he hoped Lewes would not be behind other towns in this movement.

METROPOLITAN BOARD OF WORKS.

SOUTHERN HIGH-LEVEL SEWER.

At the meeting of the Board on Friday, the 20th inst., the following thirteen tenders for this work were opened:—

Smith and Knight	£268,661
John Jay	247,200
Geo. Myers	242,700
Wm. Lavers	230,000
W. Downs	229,160
Walker, Neave, and Co.	227,540
Thirsk and Jennings	223,122
W. Webster	215,379
Joseph Diggle	215,000
Jos. Norris Ellis	213,873
W. Moxon	211,000
William Hill and Co.	204,534
John Phillips	193,169

The lowest tender—that of Mr. John Phillips, for 193,169*l.*—was accepted.

OUR FOUNTAINS SHOULD ADORN.

Will you kindly allow me, through the medium of your valuable journal, to offer a suggestion to the gentlemen of the "Free Drinking Fountain Association," now that they have taken the wise course of inviting designs for the carrying out of that laudable object, viz.,—the reservation of one or two of the most conspicuous or suitable sites, for the purpose of considering the propriety, and feeling the inclination, of artistic and other gentlemen, as to subscribing liberally for the purpose of erecting a fountain, or fountains, that might be termed national ornaments, and tend to show the "taste and execution" of the nineteenth century.

We read of the famous well at Antwerp, and why not have the remarkable fountain of "Regent Circus," or the "British Museum?" and, as I think we may fairly congratulate ourselves on the resurrection of artistic skill in wrought metal, it is possible that, by invitation, the committee might obtain a design which, if not a rival of the beautiful piece of work named, would at any rate show that the Vulcans of this day so far appreciate the works of their ancestors, as to be induced to execute something that might, at any rate, claim the notice of their descendants, which is the height of the artistic workman's ambition, and the pith of the object aimed at. W. D.

It is to be feared, as you have already pointed out, that the designs of the drinking-fountains now in course of erection, in various parts of the metropolis, will not all prove to be creditable examples of the taste of the age: in some instances the architectural and sculptural portion of these useful introductions are both elegant and appropriate; but in the wish, in thronged thoroughfares, to combine the street fountains with the gas lamps, some very incongruous matters will, ere long, I fear, be exhibited to the eye in the great thoroughfares of London.

In important centres of traffic, such as the Regent Circus, King's Cross, King William-street, &c. where the little spaces that can be spared are needed for the purpose of harbours of refuge from the numerous carriages, and where it is very important that a supply of water should be placed, light is also a great necessity, and in these situations the space is so valuable, that it would not be advisable to cover it with any erections of a large size, such as those fountains which formed such important features of the old towns of England, and many of the continental cities: in these situations the best artistic skill should be called in, in order to provide a design which would be suitable to the space and purpose, and creditable to our national taste and skill. For some of these positions I have seen designs prepared, which, by attempting too much, remind one of the taste which caused the erection of those monstrous monuments which disfigure some parts of Westminster Abbey, and our suburban cemeteries.

Considering that between 400 and 500 drinking-fountains will be required in the metropolis, it is evident that the cost is a matter of consideration; but it is found that matters of a good design are as cheap as those which are not so. It should be borne in mind that it is not only in the metropolis that this movement is going on, but also in the chief provincial towns; a circumstance which adds to the necessity of urging the introduction of good art. At any rate, parsimony should not rule in our parks and public buildings. There the Government should not be found wanting in the supply of funds sufficient for the importance of the occasion. Wayfarer.

STAINED GLASS.

Upper Tooting Church. — The east window of the new church here has been filled with stained glass by Messrs. Lavers and Barraud. It has been executed as a memorial of the late Mr. Shillingford, by the direction of his estimable widow, and, judging from the cartoons of part of it, now in the Architectural Exhibition, Conduit-street, we are prepared to believe it an excellent window. The *Te Deum* has given the subject. The reverend incumbent says the harmony of colour is very successful.

Astbury.—The great window at the end of the chancel of Astbury church now contains a new stained glass window, by Mr. Warrington, of London. The sum of 300 guineas, according to the *Macclesfield Courier*, from which we quote, was all the fund which the committee for the Offley Crewe Memorial decided to allot to church decoration, and they, at the same time, decided that the large east window was the object to be decorated. The new frame-work of the entire window (on the model of the old one), has been worked in Hollington stone by Mr. J. Burslam, of Congleton. The window corresponds with the date of the main church, that is to say, about the latter part of the fifteenth century. It consists of twenty-one lights, arranged in three tiers of seven in each, subdivided into rather long comparatively narrow compartments, and the whole surmounted with tracery of the Perpendicular period. The window contains nine Scriptural subjects, arranged in triplets and couplets. The leading subject occupying the three lights of the centre row is the "Crucifixion." The couplet on either side of this contains "Christ before Pilate," and the "Ecce Homo." The upper compartment contains, in the centre triplet, "The Resurrection declared;" and, on either side of it, a couplet containing—the one, the "Annunciation"—the other, the "Adoration of the wise men." All the subdivisions in each compartment being long and narrow, require filling up above and below. This is done by tabernacle work above, among which are introduced the figures of the Holy Lamb, the Dove, the Twelve Apostles, &c. &c.; and beneath by pedestals containing scrolls, with explanatory legends. The multitude of small compartments among the upper tracery are occupied by angels looking reverently to Jesus seated in glory. The lowest compartment, and, because nearest to the eye, the most prominent, comprises objects more expressively bearing on the funeral memorial to Offley Crewe. The centre piece of these lights contains the "Reception of little Children by the Saviour." The couplet on the left hand contains "Jesus at the Grave of Lazarus;" that, on the right hand, "Jesus appearing to Mary in the Garden."

PICTURES PURCHASED BY THE ART-UNION OF LONDON.

The following is a list of the purchases made by prizeholders up to this time:—

From the Royal Academy.—Morning on the Lago Maggiore, by G. E. Hering, 170*l.*; Milton visiting Galileo, E. Crowe, jun. 63*l.*; Little Sweetheart, F. Smallfield, 30*l.*; Misty Morning, J. Meadows, sen. 10*l.* 10*s.*

From the British Institution.—The Mother's Hope, J. W. Haynes, 40*l.*; Rain on the Fair-day, C. S. Lidderdale, 25*l.*; Little Headrigg—"Old Mortality," T. Mogford, 20*l.*; View from the Isle of Bute, J. C. Ward, 26*l.*; Evening Meal, G. W. Horlor, 63*l.*; Camelias, Miss Mutrie, 26*l.* 5*s.*; Fishing-boats returning, T. S. Robins, 15*l.*; A Roadside, Albury, V. Cole, 15*l.*; Hay Time, Bracknel, W. I. Rose, 15*l.*

From the Society of British Artists.—The Black Pool on the Leder, J. P. Pettit, 75*l.*; The Rock Quarry, J. Tennant, 75*l.*; Whitby from Upgang, E. Niemann, 60*l.*; Children Nut-gathering, E. J. Cobbett, 63*l.*; The Way through the Fields, W. Shayer, 30*l.*; Gipsy Group, W. Shayer, 23*l.*; A Study at Bettws-y-coed, V. Cole, 20*l.*; Pilot Boat, W. E. Bates, 15*l.*; The Cottage Rose, J. Bouvier, sen. 15*l.* 15*s.*; Beatrice listening in the Bower, A. J. Woolmer, 25*l.*; The Rivals, R. W. Buss, 20*l.*; The Caba Mountains, G. Shalders, 17*l.*

From the Institution of Fine Arts.—Sea Coast, F. Underhill, 30*l.*; Farm-yard, Messrs. Herring and Rolfe, 45*l.*; Poachers dividing their Game, H. P. Parker, 42*l.*; The Falsehood and Mother's admonition, J. M. Barber, 25*l.*; Preparing for Combat, M. Robinson, 20*l.*; Harvest Time, G. A. Williams, 23*l.*; The Fisherman's Departure, C. J. Lewis, 31*l.* 10*s.*; Breezy Day on the Thames, E. C. Williams, 15*l.*; Yew Tree in Lorton Vale, B. Rudge, 15*l.*; Lock Katrine from the Trossachs, J. T. Walton, 15*l.*

From the New Water-Colour Society. — The Road through Borrowdale, D. H. McKewan, 31*l.* 10*s.*; The Silent Pool, J. W. Whymper, 30*l.*; Italian Muleteers, C. Vacher, 20*l.*; Sunset in Solitude, T. Lindsay, 15*l.*

From the Old Water-Colour Society.—A Branch of the Thames, W. W. Gosling, 30*l.*; Preaching in the Crypt, G. Dodgson, 25*l.* 5*s.*; The Up-Train, W. C. Smith, 18*l.*

THE FALL OF SCAFFOLDING, WESTMINSTER PALACE HOTEL.

Since our last, one additional death has unfortunately occurred, making seven in the whole. The inquest was resumed on Monday last in the board-room of the Westminster Hospital, when various witnesses were examined.

Mr. Sturgeon, instructed by Mr. Whitehurst, attended for the widows and relatives of some of the deceased, and on the part of the Accident and Relief Society of Labourers. Mr. Moseley appeared on behalf of the widow of Cornelius Buckley, who was killed almost instantaneously on the fall of the stage. Mr. Serjeant Ballantine appeared on behalf of Messrs. Myers.

Patrick O'Neal deposed that he was a labourer employed upon the building of the Westminster Palace Hotel, and was engaged upon the works when the accident took place on the 13th inst. Witness had come up the scaffold and upon the stage, and thence went about ten feet higher up on another stage. He saw the scaffold fall. There had been a lower stage beneath the one which gave way, but which had been removed about a fortnight previous to the accident. When that stage was removed nothing at all was put to replace it or support the upper stage, the beams of which were left resting on the bare walls, as they always did. Witness was positive that nothing had been put to support the upper stage after the lower one was taken away. The lower one, however, had nothing to do with the upper. On the morning of the 13th inst. when he came on the stage when the accident occured he at once noticed that there was a greater amount of building materials on it, such as bricks, mortar, and cement, than had ever been placed there since the stage was erected. Witness remarked the large quantity of materials upon it, and told the men to lighten it as fast as possible, as there was too much "stuff" upon it. The foreman was not then, he believed, in hearing of what witness said. The two labourers to whom he spoke said they would not remain long on the stage; one had just filled his hod and slipped off it as the scaffold gave way. Witness had been on that stage as late as half-past five on the night preceding the accident. There was then comparatively only a small quantity of materials on it. Witness was aware the men worked later than half-past five that night, in compliance with Mr. Joseph Myers's orders to that effect. The main beams on which the stage rested were nine inches wide by five inches thick—scarcely five inches. There were five of these beams, and those were all that were allowed for the stage. The opening across which this stage rested was twenty feet wide, and the ends of the beams rested on the walls. Witness did not think the five beams sufficient, and he accordingly made a sixth by binding two three-inch deals together, so that there were six beams to support the stage, five from Mr. Myers's yard and one made by himself. The beams or "transoms" were laid across the opening, with their ends resting on the walls, and over them was laid one-and-a-half-inch deal planking.

By Mr. Sturgeon.—Witness was employed in making the stage, and he asked for six beams, or "transoms," but he only got five. He asked Mr. Coleman, the foreman, for them, and said as they were going high they had better have a strong stage. Mr. Coleman said the stage would do very well, and after the accident Mr. George Myers said he would not wish to stand upon a better stage. Did examine all the beams to see if they were sound before the accident. Had seen them since the accident, and now that they have dried there are many knots perceptible in them which could not be seen at first, as the wood was wet. The lower stage was not connected with the upper in any way, so its removal did not, of course, affect the stability of the upper. Never mentioned to Mr. Myers that the stage was dangerous.

By the Coroner.—There were about two tons of mortar in the centre of the scaffold when the accident occurred.

Examination of witness continued.—The end of the beam supporting the stage rested about six inches in the wall at each side. One end of the timber was bricked into the wall. Could not say how much additional weight was put on the stage before it fell, in addition to what had been there all night. The men had only been at work five minutes or so when the accident took place. Witness is certain that some of the materials which were on the stage had been shifted from where they fell with the men. Heard Mr. George Myers give directions to "move the things."

By the Jury.—Witness did mean to say that there was more than one knot in the beams which had broken. It was not usual to ask what weight the scaffold was to bear when ordered to construct one. The foreman saw the stage and was satisfied with it.

Richard Smith, foreman of Mr. Myers's joiners, explained that there were no cross trusses between the main beams to prevent their falling from their edge on to their sides. Some of them had one end bricked in.

John Hay, a labourer, said he was wheeling bricks upon the stage which gave way. Witness had been at work the night previous wheeling bricks on to the stage for an hour. He did this at the direction of Mr. Myers, jun. Witness worked this way till half-past six on Thursday night, and began again on the morning of the accident, at half-past five. Witness continued doing it till the scaffold broke down. Had not the least idea how many barrow-loads were put on the stage, but believed there were between six and seven tons. They were all put near the centre. Witness did not consider the stage safe, and on the Thursday before the accident he told the foreman of bricklayers that if they kept putting on the "stuff" as they did it would break down. The foreman replied, "We must keep the 'stuff' going on it while Myers is on the ground." Mr. Joseph Myers told witness himself that he must stay overtime and put more materials on the stage. Witness mentioned the danger of overloading the stage to Mr. Woodley, the foreman of the bricklayers, who was witness's overseer.

By Mr. Sturgeon. — He told Mr. J. Myers that he worked half an hour before the men came to work and while they were at dinner, and that was always enough to keep the men supplied with materials. Upon that Mr. J. Myers said again, he did not care a ——: he (witness) must work overtime and get some more "stuff" up that night. Witness had seen men employed to remove the bricks and mortar which fell with and on the men. There were four men employed, and a great deal had been removed from the place.

The Coroner.—Yes; but was not that to search for a body?

Witness.—Certainly not. All the bodies had been taken out and taken to the hospital long before that.

Mr. Serjeant Ballantine.—Will you swear that the bodies had all been recovered?

Witness would swear positively they had all been taken out. He remained upon the ruins till eight that morning, and no more bodies were found. There were a good deal more than 500 bricks fell with the men. A great many had been taken away since then by Mr. Myers's orders.

John Connor, a labourer at the building, was at work on the morning of the accident till the break-down occurred. He filled the barrows with bricks and sent them up to the stage, and he was at work in that manner for an hour overtime on the night previous to the accident. Each barrow held 60 bricks, and a horse-load was about 500 bricks. He was sure he sent up to the stage three loads of 500 bricks on the night before it broke down. It was three loads at the least. He was not at work at sending them up in the morning. He was asked to work overtime the night before the accident by Mr. Coleman, the foreman, and Mr. Myers, jun. and it was then the bricks he mentioned were sent up. Did not personally hear Mr. Myers order the stage to be loaded. Had no doubt the accident was caused by getting too much "stuff" up overnight.

Other evidence to the same effect was given, and the inquiry was adjourned till Thursday, the 26th. On that day, at two o'clock, the inquiry was resumed, and evidence being heard till about half-past six o'clock, was again adjourned to Thursday next.

BUILDERS' BENEVOLENT INSTITUTION.

YESTERDAY the friends and subscribers to the above institution assembled at the London Tavern, Bishopsgate-street, for the purpose of electing one male and one female from fourteen candidates, to become recipients of the benevolence of the institution. Mr. Thomas Piper (President) occupied the chair.

The present is the fourteenth election of pensioners.

The Chairman, in opening the proceedings, called the attention of the meeting to the object of their presence on this occasion, viz. the election of one male and one female from a list of fourteen candidates, whose hard fate had pressed them upon the charity of others. He regretted that they had been able only to elect one-seventh from the list who had sought their aid, but he hoped that the time would soon arrive when three-fourths instead of one-seventh would be provided for. Short, however, as had been the time, they had been enabled to provide for the old age of many, up to their dying day. Their institution, different from others of similar character, had been supported by their own class, which was evidenced by his position before them on the present occasion. They received no support from the great and noble, to whom, however, they had made no appeal. The Chairman concluded by hoping that in November next they should have another election, when they might be able, possibly, to elect a greater number, their utmost wish being to afford support to the aged and afflicted; and, as life was short, it behoved them to do all the good they could.

The election was then proceeded with; at the termination of which, and on the return of the scrutineers, the numbers of votes received by each candidate were announced, together with the names of the successful parties.

The Chairman said he was sorry to find that the full number of votes had not on this occasion been made available; but he hoped that if all went well, they should have another election in November, when some of the present unsuccessful candidates would be able to congratulate themselves on their election.

Votes of thanks were then accorded to the chairman and the scrutineers, which being duly responded to, with an expression of their willingness to assist in the cause of charity, the proceedings terminated.

Miscellanea.

MUSEUM OF PATENTS, SOUTH KENSINGTON.—Number of visitors for the week ending May 21st:—Mornings, 976; evenings, 935—total, 1,911. Since the opening of the Museum free daily, (May 12, 1858), 99,845.

THE LATE MR. DONTHORN, ARCHITECT.—We observe with regret the death of Mr. W. J. Donthorn, late of Hanover-street, one well known to many of our readers. He was a pupil, if we mistake not, of the late Sir J. Wyatville, and executed many large works, including a building for the late Lord Stuart de Rothsay, at Bournemouth. Mr. Donthorn was one of the committee to present a memorial to Sir John Soane in 1835, and was successful in several competitions. He will be remembered as a tolerably constant attendant at the earlier congresses of the Archæological Institute.

CHELSEA NEW BRIDGE.—A movement has been set on foot in Clapham and its vicinity, for the purpose of procuring the construction of a south-west approach to Chelsea New Bridge, the want of which is causing some public inconvenience. The Battersea-park Commissioners state that they have neither power to execute it, nor funds for the purpose,—a desirable one, they think, both as regards the interest of the public generally and that of the owners and occupiers of land in the neighbourhood. An Act of Parliament will be requisite.

GOTHIC INTERCOLUMNIATIONS.—Here are a few more examples of Gothic intercolumniations, proportioned on the principle alluded to by me in page 420 of the *Builder*, for 1858. Ringstead, North Hants, 9ft. 7in. between centres of piers, 9ft. 9in. high, two orders of shafts. Austrey, Warwick, 14ft. between centres, height 15ft. 3in., two orders, with *small* moulding between shafts. Winchelsea, 16ft. 5in. between centres, 17ft. 11in. high, two orders and moulding as above. In the Perpendicular School the height of the column frequently bears towards the intercolumniation a proportion similar to that between the depth and width of the column as measured on plan.—W. S.

PROGRESS OF RUSSIA.—It has been very evident since the close of the last Russian war, that this country has turned much attention to the means for improving its manufactures, agriculture, commerce, and its railways, which has given rise to an enormous demand for building materials, and bricks in particular. Mr. Henry Clayton, of the Atlas Works, London, the maker of brick machinery, obtained some time since special privileges from the Russian Government, for the introduction of his machinery, and his system of brick manufacture throughout. For the establishment of very extensive brick manufactories in St. Petersburgh and Moscow, Mr. Clayton has, during this month, sent out a staff of men to superintend the erection of the buildings and machinery requisite for those works, one of which is to be capable of producing at least ten millions of bricks per annum.

ELECTRO-TELEGRAPHIC PROGRESS.—The submarine telegraph cable has been successfully laid down from Westerwick, in Sweden, to Wisby, in Gottland, by the screw steamer Berwick, under the direction of Mr. Canning, their chief engineer.——Some very interesting and satisfactory experiments it is said, have again been made at the India-rubber manufactory of Messrs. W. and S. Silver and Co. North Woolwich. The experiments were made by Professor Wheatstone and Mr. W. N. J. Holmes, the electrician, upon the insulation of India-rubber covered wire for submarine telegraphic purposes, under the new patent recently obtained by the Messrs. Silver. India-rubber, besides being elastic, is not affected by changes of temperature, and under the improved process of manufacture adopted and patented by Messrs. Silver, assumes, it is said, a solid, homogeneous, and effective insulating form, impervious, as at present ascertained, to water, even under enormous pressure. The length of wire—some miles—experimented upon, had been submerged for more than a month, and was found under every condition of battery power, to indicate perfect insulation.

WANT OF EDUCATION IN ENGLAND.—First, we want in all the large towns a series of *free schools* for the *lowest strata* of society, to occupy thoroughly the whole ground that is now very inadequately taken by the *ragged school*. Next to this come those schools which are at present being so largely established through the country, in which both the nature of the instruction and the entrance-fee are adapted to the wants and resources of the working-classes. Thirdly, we should require a series of town schools, adapted more particularly for the mercantile classes, including, in addition to all that is taught in the primary school, the departments of mathematics, science, and modern languages. Fourthly, we should need a proper number of grammar schools, answering to the gymnasia of Germany and the royal or municipal colleges in France, and united to those who intend to embrace a professional life. If such a plan were carried out, every father of a family upon whom a portion of the rates fell would, whatever his sphere in life, get a return far more than equivalent to what he is required to pay. Lastly, with regard to the teachers themselves, if we expect to keep up an efficient staff, two conditions are necessary:—1st. That they may be adequately remunerated; and, 2nd. That their position be made sufficiently *independent*.—*From the Encyclopædia Britannica, — New Edition.*

KEW GARDENS.—The Botanic Gardens, containing the palm-house, the museums, aquarium, and the royal palace pleasure-grounds, are now open for the season, every week-day from one o'clock till dusk, and on Sundays from two o'clock till six.

MACLISE'S "CONQUEST."—The remarkable series of forty-two drawings, telling the story of the Norman Conquest, by Mr. Maclise, R.A. which were exhibited at the Royal Academy two or three seasons ago, are now at the French Gallery, in Pall-mall, and serve greatly to increase the interest of that exhibition. Here also are Mr. David Cox's drawings and paintings.

THE MANUFACTURE OF ARMS.—The manufacture of arms at Liege will shortly take a wide field, several considerable orders having been given to the principal armourers. At present the establishment of P. J. Malherb and Co. has been ordered by the Saxon Government to complete 20,000 rifles, for which all hands are to be put to work at once. On the other hand, the British Government has issued orders for 400,000 rifles and carbines; half to be made at Liege, and half at Birmingham. These 200,000 for Liege are to be given to public competition among the armourers, whose tenders were received up to the 20th inst.

HINGES.—Mr. Edes, of the Royal Engineer department, Colchester, has contrived a butt hinge, to improve the appearance in the joist of a door and its architrave. The present butt hinge cuts half into the bead of architrave, and half into the door, and breaks the line of architrave. The new hinge allows the knuckle to cut *all* into the bead, and the half flange into the door, which keeps the line of architrave unbroken. In instances where the door is not required to open straight back, the knuckle of hinge can be fixed *flush* with the bead. The cost of hinge is not increased.

"THE BOYS' HOME."—Sir: On behalf of my colleagues of the committee of the Boys' Home, I beg to thank you for your very kindly notice of this institution in the last number of the *Builder*. The establishment of this Boys' Home has been a work of some trouble and labour; and it is both gratifying and encouraging to us to find that our exertions are appreciated by visitors so well able to understand the difficulties and troubles with which we have had to contend. Certainly we have much to be thankful for. We little expected fifteen months ago to have had sixty boys pass through the Home in that period, only three of whom are known to be still "doing badly." We intend to persevere; and we trust that twelve months hence we may deserve another encouraging word.—GEORGE BELL, Hon. Sec.

BURFORD'S PANORAMA.—Mr. Burford's new panorama, in the execution of which Mr. Henry C. Selous has co-operated as usual, represents Benares, the most holy city of Hindostan, situated on the left bank of the Ganges, and comprising numerous temples and pagodas. The description is scarcely special enough: thus we have "a palace," "a ghaut," "a pagoda," "a dead body," and so on throughout. The view, however, gives a capital general notion of the city, and is charmingly painted. The water and the craft that float upon it,—paunchways, cotton boats, and budgerows,—are particularly effective. A visit to the panorama of Canton, the city of pigstyes, still exhibiting here, affords a contrast to Benares in respect of art and taste not at all flattering to the "Celestials," who have so long mystified and humbugged the civilized world.

STRIKES.—The masons at Chester are on strike for half-an-hour's time in the afternoon, either for tea, or at the close of the day's work, at half-past five instead of six. Various building works are therefore at a stand.——The Newcastle-upon-Tyne masons employed at the quay-side have also been on strike for half-an-hour's time and 3s. addition to their wages of 24s. a-week. The strike continued for about seven weeks, 200 men being idle during that time; but the masters have at length acceded to their terms.——At Kelso some of the master-masons have announced a reduction of wages—from 5d. to 4½d. an hour. The men have struck work.——One of Alderman Copeland's Parian figure-makers has been sentenced to one month's hard labour for breach of agreement, having struck work and induced others to strike, while he was under an engagement for twelve months, at minimum wages of 47s. 6d., the amount often reaching 54s. Others on strike agreed to return to work and pay the expense of bringing them into court, on this sentence being pronounced. The magistrates, however, refused to accede to the complainants' request to be freed from the agreement with the first-mentioned workman.

EDINBURGH.—Operations have been commenced in connection with the new buildings proposed to be placed on the site of the high tenement at the head of the Mound, which was destroyed by fire in August, 1857. The structure, which has been designed by Mr. Cousin, city architect, will include a new office for the Savings Bank. Accommodation will also be provided for the offices of the Free Church.

EARTHENWARE COFFINS.—The most ancient of all coffins are those found in thousands in the "Cities of the dead," on the sites of ancient Chaldea and Babylonia. They are made of terra cotta, and are of slipper shape. An article of a somewhat similar kind, so far as regards material, namely, an earthenware coffin, is now being manufactured at Mr. Thorniley's Tile and Pot Works, Heaton-Mersey, near Manchester. The shape is said to be quite equal to that of oak and elm coffins of the best makers. The lid falls within a ledge, and is fastened down with Roman cement before being consigned to the grave. The ancients knew better than this, however: they did not want them to explode, and left free egress to the gases of decomposition.

NORTHAMPTONSHIRE ARCHITECTURAL SOCIETY.—The members of this society were invited to join the Lincoln and York Architectural Societies at Grimsby, on May 25 and 26. They were to visit Clee, Holton, Waithe, Grainsby, Ravendale, Ashby, Brigsby, Waltham and Scartho on Wednesday, and a special train to start for Thornton Abbey, &c. on Thursday. Papers were to be read by the Rev. E. Trollope, Rev. G. Atkinson, and Professor Latham. The great docks at Grimsby are themselves a sight worth the journey, and the neighbourhood abounds with points of interest. The proposed meeting of architectural societies at Stamford will not take place probably till September.

A SELF-SUPPORTING BRACKET.—Everyone knows how the principle of atmospheric pressure is illustrated by a toy called a sucker, which boys make with a bit of wet leather and a string passed through its centre: the principle has just been applied in an analagous manner as the means of fixing a piece of metal in a moment to a wall, a ceiling, or the glass of a window. "Lavater's patent pneumatic bracket" is a short brass tube, having at one end sockets in which may be inserted any sort of light frame, branches, or hooks, and terminating at the other extremity in a trumpet-like expansion, which is covered with a disc of india-rubber. To the centre of this disc is attached a smaller one of metal, which can be drawn within the tube by a screw proceeding from a cap that fits over the smaller end of the tube. When the screw is relaxed the india-rubber disc is flat. Apply it then to the wall after moistening it with the breath, turn the screw, and the metallic disc, receding from the surface of the wall and carrying the central portion of the india-rubber with it, will create a vacuum capable of sustaining a weight proportioned to the superficial area of the trumpet-like expansion. The bracket may be detached in a moment, and will leave no mark, it is said, where it has been. By means of a similar contrivance any number of brass rods may be attached to the glass in a shop window without breakage.

PROPOSED CONSERVATORY OF ART AND SCIENCE FOR MASSACHUSETTS.—A project for a cruciform building of iron and glass, to constitute a museum of art, science, and historical relics, has been started at Boston, U. S. where a "Conservatory Journal" is being published, mainly with the view of realizing it. An estimate having been called for from Mr. James Renwick, the architect of the Smithsonian Institute at New York, and of the new cathedral to be erected in New York at a cost of a million of dollars, we shall best give some idea of the conservatory project by quoting from the architect's reply:—"I am of opinion that such a structure can be erected of granite, iron, and glass, for a sum not exceeding 450,000 dollars. The plan, that of a Greek cross, with a central dome 100 feet in diameter, four galleries or arms each 200 feet in length by 50 feet in breadth, and four arms forming a Greek cross, is in my opinion the most perfect that can be adopted, as it will produce a magnificent effect from the exterior, and its internal arrangement will be at the same time compact, and afford a perfect separation for the different departments of art and science which it is intended to contain. It may not be uninteresting to you for me to state here that the original plan of the great Michaelangelo for the Basilica of St. Peter's, at Rome, was a Greek cross with a grand central dome; so that you have the best authority for your architectural arrangement."

THE FREEMASONS OF BRISTOL AND THE CHURCH OF ST. MARY REDCLIFF.—We understand that several of the Masonic lodges of this province have determined upon undertaking the restoration of a certain small portion of St. Mary Redcliff Church, for which purpose they are already making a subscription.

COATING IRON WITH BRASS: TYTHERLEIGH'S PATENT.—Sir: The extract from the *Birmingham Journal* respecting this process is calculated to mislead the public. We have given the invention every trial during the last twelve months, and find that the coating does not prevent iron from rusting.—TUPPER and Co.

MELBOURNE, VICTORIA.—The members of the Mechanics' Institute have determined upon erecting a new hall at an expense of 7,500*l.*, and the sum of 3,000*l.* has been voted by the Corporation for this year's quota towards the erection of public baths and fountains. Melbourne is a public-spirited city.

FRETHERNE CHURCH.—With reference to notice of the restorations at Fretherne church, under Mr. Hugall, the architect (from the *Gloucester Chronicle*), p. 335, where mention is made of a bracketed bust of Caen stone, as a memorial of the late Sir Edward Tierney, bart. and the names of several of those employed are given, we are asked to mention that the portrait bust was executed by Mr. E. Richardson.

ARCHITECTURAL ASSOCIATION.—*Class of Design, Conduit-street, May* 20, 1859.—The president (Mr. Randall Druce) in the chair, the minutes of the last meeting were read and approved of. Sketches were contributed for a pigeon-house, which were criticised by the chairman and class. A conversation then took place on the importance to architects of studying flowers and foliage from nature, which it was considered would give an increased originality of ideas in designing details. The subject of the half-hour's sketch was "A Monumental Cross," which produced designs from all the members present, after the criticism of which the meeting adjourned. The subject of the sketch for the next meeting of the class, on June 3rd, will be "A Cemetery Chapel."

THE NORTH-WEST LONDON REFORMATORY.—Captain John Grant, R.A. is the inventor of the economic cooking apparatus at the North-West London Preventive and Reformatory Institution, and not Captain Shaw, as mentioned in the excellent leading article in the last number of the *Builder*. Captain Grant has also erected, adjoining this institution, a model bakery, which he has patented. By his patent ovens, baking can be carried on at far less expense than by the ordinary plan; and as two ovens are heated by the same fire, great facilities are afforded for continuous working, as one baking is not chilled when the other is drawn, as is the case in single ovens. With regard to the ventilation of our institution, I am convinced that colds are not caught in an airy, well-ventilated dormitory, provided there are no draughts; but on the contrary, fresh air admitted into a bed-room, as elsewhere, is always most necessary for health.—ARTHUR J. BAKER, Architect to the Institution.

FIELD-LANE RAGGED SCHOOL AND NIGHT REFUGE.—The seventeenth annual meeting of this praiseworthy institution was held in the Freemasons' Tavern, Great Queen-street, Lincoln's Inn-fields, on the 2nd inst. Lord Shaftesbury in the chair, when the report was read, according to which it appears that upwards of 10,000 persons annually participate in the advantages offered by the institution, that 1,222 last year were rescued from the temptations of the streets, and placed in positions of usefulness, and that all the work of the institution is accomplished at a cost of less than 3s. 6d. per head per annum. The finance report showed a balance at the banker's in favour of the society to the amount of 1,426*l.* How much cheaper and better it is to prevent than to punish and reform, may be considered from the fact that the cost to the country of the imprisonment, in the Old Bailey, near Field-lane, of about the same number of persons as those permanently benefited yearly in the Field-lane Refuge and School Association, namely, 1,220, is no less than 50*l.* a head; although, on the one hand, the young persons rescued by the Refuge Association from the temptations of the streets, and placed in positions of usefulness, are thereby in general made honest members of society, while the costly prisoners are only cast out into the streets again to go through the very same costly process as before, without permanent benefit either to themselves or to the public. The Field-lane Associations deserve extensive support; and, indeed, this even becomes a Government question of the utmost importance.

MANCHESTER SCHOOL OF ART.—PRESENTATION TO MR. HAMMERSLEY.—At a meeting of the students of the Manchester School of Art, held at the Royal Institution, Mr. Hammersley, for the last ten years the able head master of the school, was presented with a testimonial, expressive of the respect entertained towards him by his pupils. There was a very large attendance. The chair was taken by Professor Scott, who, in a very able address, referred to Mr. Hammersley's merits as a distinguished member of the school of British landscape painters. At the conclusion of the address, the audience adjourned from the theatre to the ante-rooms of the institution, which were adorned with art treasures.

BIRMINGHAM AND MIDLAND COUNTIES ARCHÆOLOGICAL SOCIETY.—The first anniversary meeting of the members of this society was held on Friday 13th, in the Lecture-hall of the Midland Institute, the Rev. J. G. Cumming in the chair. The report, which detailed the proceedings of the past year, having been read and adopted, Mr. C. H. Bracebridge was elected president for the ensuing year. Professor Chamberlayne and Mr. G. Jabet were appointed honorary secretaries. During the proceedings it was suggested that the next excursion should be to Wroxeter, to inspect the Roman remains lately discovered there.

TENDERS.

For new church, Garden-street, Westminster. Mr. G. E. Street, architect:—

Messrs. Lucas	£7,462	0	0
Kelk	7,425	0	0
Holland	7,397	0	0
G. Smith	7,347	0	0
Trollope	7,293	0	0
Bowley	6,730	0	0
Higgs	6,666	0	0
Browne and Robinson	6,620	0	0
Piper	6,497	0	0
Jackson and Shaw	5,898	0	0
Myers	5,634	0	0

For rebuilding house, No. 30, King-street, Covent-garden. Mr. Charles G. Searle, architect:—

Holland and Hannay	£3,194	0	0
Ryder	3,060	0	0
Macey	2,995	0	0
Axford and Co.	2,833	0	0
Ennor	2,647	0	0
Howard (accepted)	2,589	0	0

For erecting a warehouse, drying-stoves, dwelling-house, &c. at 145, Goswell-street, for Mr. W. Reynolds. Mr. Thomas J. Hill, architect:—

Sewell	£3,332	0	0
Outhwaite	3,229	0	0
Piper and Son	3,150	0	0
Anley	3,096	0	0
Browne and Robinson	3,082	0	0
Brass	2,993	0	0
Ramsay	2,982	0	0
Jay	2,961	0	0
Laurence and Sons	2,942	0	0
Watson	2,500	0	0

For farm-house and farm-buildings, to be erected at Eaton-green, in the parish of Luton. Mr. William Watson, architect:—

Williams (Luton)	£4,000	0	0
Dunham	4,110	0	0
King	4,237	0	0
Lane	4,750	0	0
Orchard	4,969	0	0

For Andover National Schools. Mr. William White, architect. Quantities supplied by Mr. Samuel Field:—

C. Young	£2,350	0	0
Futcher	2,300	0	0
Hardy	2,237	0	0
Gue	2,037	0	0
Ball	2,045	0	0
Spachman	1,962	0	0

For finishing five houses at Wandsworth. Mr. Padmore, architect:—

Morris	£1,476	0	0
Hopper and Eascott	1,430	0	0
Sykes and Co.	1,290	0	0
Daveys	1,289	0	0
Joel Parry	1,254	0	0
Smith	1,222	0	0
Coop	1,196	0	0
Wint	1,143	0	0
Love and Watts	1,132	0	0
Branson	1,100	0	0
G. and H. Williams	995	0	0
J. G. Stokes	893	0	0

For farm buildings and cottages about to be erected at Wakerley, Northamptonshire, on the estate of the Most Honourable the Marquis of Exeter, K.G. Mr. Edward Browning, architect, Stamford:—

FARM BUILDINGS.			
Broadbent, Leicester	£1,987	0	0
Lindley and Fern, ditto	1,985	0	0
Cave, Oakham	1,719	15	0
Jeffs and Roberts, Stamford	1,694	12	9½
Richardson and Son, ditto	1,639	0	0
Bradshaw, ditto	1,600	0	0
Elliott, Duddington	1,567	0	0
COTTAGES.			
Richardson and Son, Stamford	423	0	0
Jeffs and Roberts, ditto	418	0	0
Bradshaw, ditto	409	0	0
Elliott, Duddington	340	0	0